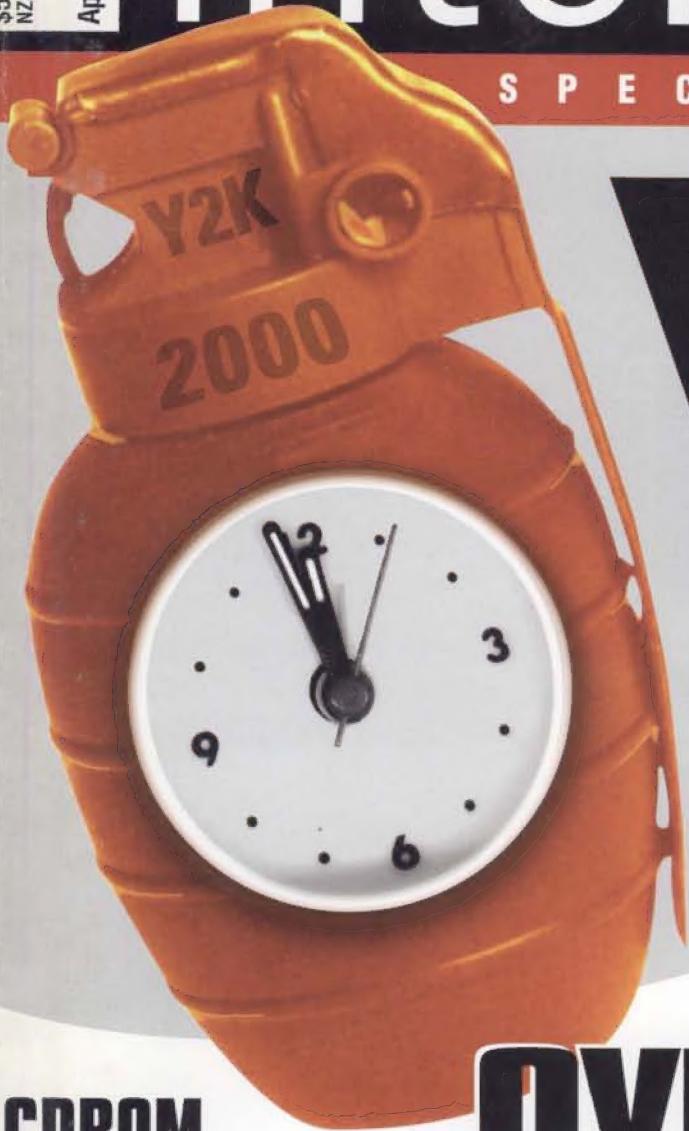


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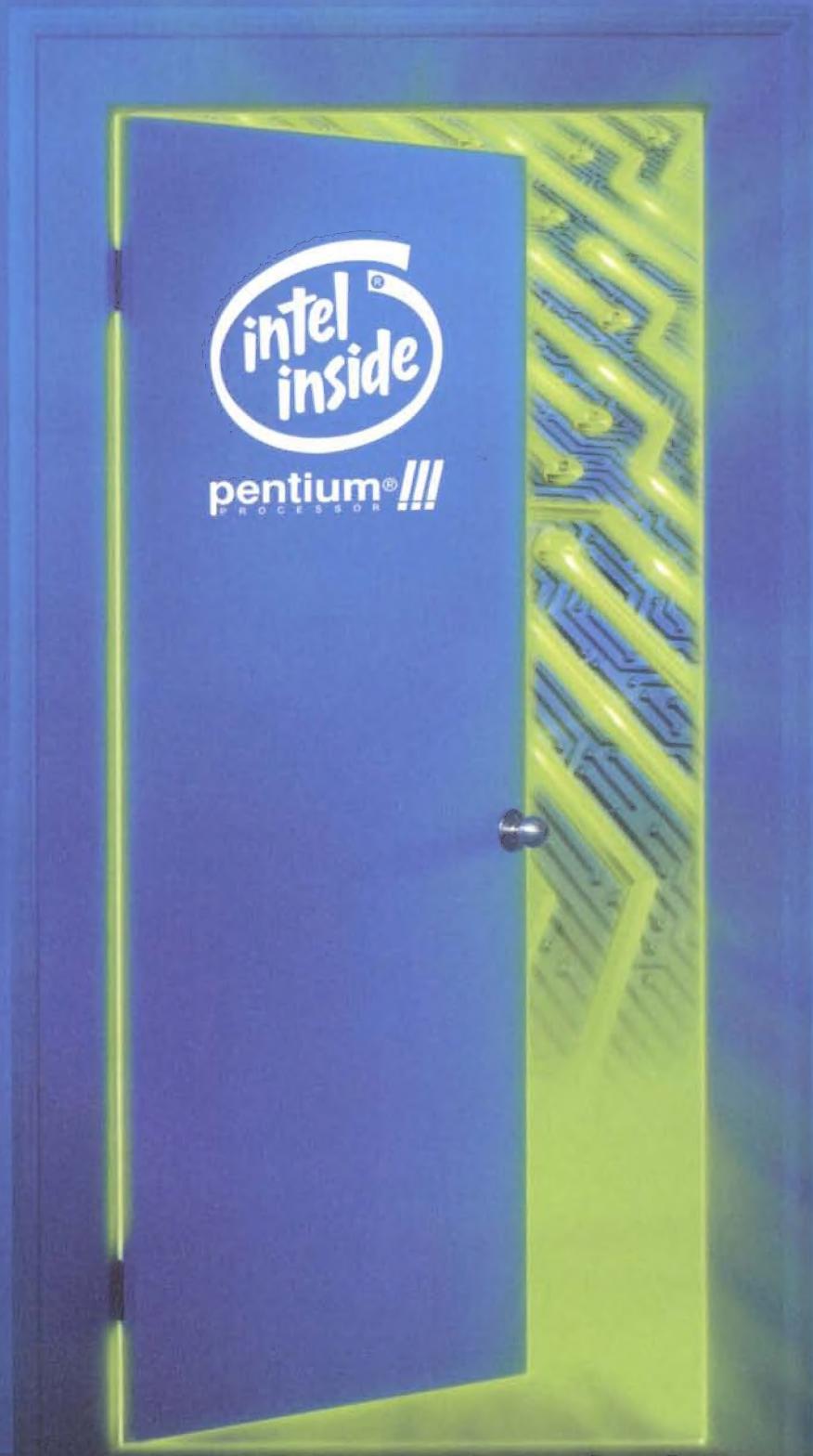
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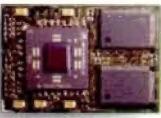


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Power Mac™ G3 gives you more

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world's first integrated ATI
RAGE 128 accelerator, for
ultrafast 3-D graphics.*

bother with frame rates or other mysterious settings. You get the quality of pro systems costing ten times as much. Yet with all of

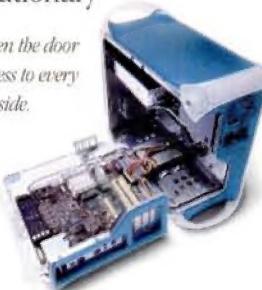
its expanded abilities, the new Power Mac G3 is artfully engineered to take up less space than its predecessor. And it's encased in a minitower that's as

remarkably designed as its contents.

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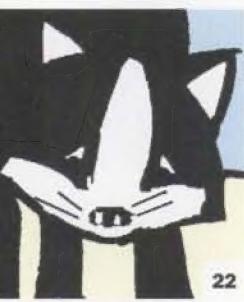
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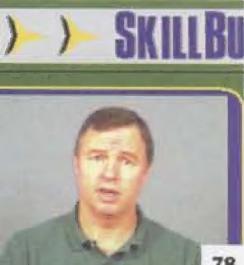
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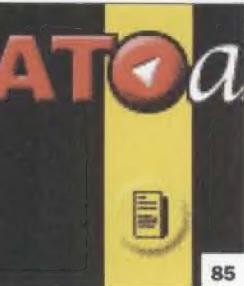
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■ by Nic Healey and Kate Crawford



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It's the tech you want, not the tech you need

■ by Robert Arthur



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Making the Web work just for you

■ by Todd Nicceape



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What you can WIN THIS MONTH!

1. Letter

►page 12

Need to get something off your chest? Send us a letter — the best one wins a copy of professional email program Eudora Pro 3.

LETTER OF THE MONTH WINS
EUDORA PRO 3,
WORTH \$69!



2. Subscription

►page 20

You can get *Internet.au* in your letterbox every month at a cheaper rate and be in the running to win our amazing prize.

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3. Web in motion

►page 25

Try your hand at animation and you could win a fabulous software pack from Macromedia!

ANIMATION OF THE MONTH WINS
DIRECTOR 6,
FLASH, FIREWORKS
AND DREAMWEAVER
VALUED AT \$3134!



4. FAQ

►page 70

Got a burning question? You can get an answer and be in the draw to win Norton Utilities to protect and care for your hard drive.

QUESTION OR TIP
OF THE MONTH
WINS NORTON
UTILITIES,
WORTH \$130



5. Reader's site

►page 96

If you think your Web site is something special, let us know, and we'll review it and give the best one a terrific software pack from Microsoft.

READER'S SITE OF
THE MONTH WINS
FRONTPAGE 98
AND PICTURE IT,
VALUED AT \$200



6. Reader review

►page 101

Seen a groovy site recently? Why not tell us about it in 80 words, and you could win a Jolt prize pack, including heaps of free Jolt!

REVIEW OF THE
MONTH WINS
JOLT PRIZE PACK
VALUED AT \$100



und.com/

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windows 95/98/NT4

Windows 95/98/NT4

browsers

Netscape

Netscape Communicator 4.5 (freeware)
Netscape Communicator 3.04 (freeware)

Microsoft

MS Internet Explorer 4.1 (freeware)
MS Internet Explorer 3.0.2 (freeware)

► other

1st Choice Browse2000 4.73 (shareware)
Activator 1.0 (shareware)
Lynx 2.8.1 (freeware)
Colourfinder 1.1 (shareware)
Opera 3.51 (shareware)
Smoke Zone 3.52 (freeware)

email/ftp/chat

► email programs

Becky Internet Mail 1.24 (30 day trial)
Calypso 2.40 (30 day trial)
Canine Mail 0.80 (shareware)
Email Ferret 1.5 (freeware)
Eudora Light 3.06 (freeware)
Eudora Pro 4.1 (30 day trial)
Hotmail Express 1.13 (freeware)
Hotmail Notify 1.65 (freeware)
Pegasus Mail 3.01d (freeware)
Post Pet 1.12 (30 day trial)
Talking E-mail 1.1 (14 day trial)
The Bat 1.14 (shareware)

► ftp programs

Absolute FTP 3.03 (shareware)
Bulletproof FTP 1.0 (shareware)
Cute FTP 2.6 (shareware)
First Choice 1.0 (shareware)
WS FTP 4.6 (freeware)

► chat programs

iChat Pager 1.3 (freeware)
ICQ 1.5.5 (freeware)
ICQ Magic Spell 1.55 (shareware)
ICQ for Net Meeting (freeware)
Inconnect 5.2 (freeware)
IRC Gold 3.01 (freeware)
mIRC 5.5 (shareware)
Objirc Chat 3.0 (shareware)
Pagoo 4.0 (shareware)
PowWow 3.7 (freeware)



▲ Experience the easy viewing of graphic and picture files with AcdSee 2.4.

other programs

► games (demos)

Aces Gold Casino 1.01 (freeware)
Gamespy 2.05 (shareware)
Good Luck Casino 1.0 (freeware)
Kali 1.59 (shareware)
Ping Tool 2.5 (freeware)
Pro Pinball: Big Race USA 1.0 (demo)
Quake 2 3.20 (demo)
QuakeWorld Client 2.33 (freeware)
Tanarus 1.0 (shareware)

► newreaders

Agent 1.5 (commercial demo)
Free Agent 1.11 (freeware)
Gravity 2.1 (shareware)
News Express 2.01 (freeware)
NewsGrabber 2.1 (shareware)
NewsShark 1.0.1 (freeware)
Picture Agent 2.6 (shareware)
TIFNY 2.2a (shareware)

► utilities

Adobe Acrobat Reader Plugin 3.02 (freeware)
CoolTask Bar 2.0 (shareware)
Cybermedia Uninstaller 5.1 (commercial demo)
Memturbo 1.0 (shareware)

Norton Crashguard 3.5 (commercial demo)
Windows Commander 3.0.3
Winzip 7.0

► web design

Dreamweaver 2.0 (commercial demo)
Hot Metal Pro 5.0 (commercial demo)
Pretty HTML 2.0 (shareware)
Splash 1.2 (shareware)
Visual Page 1.1.1 (commercial demo)

► miscellaneous

3d Magic 1.10 (shareware)
AcdSee 2.4 (shareware)
Alexa 3.0 (freeware)
AOL Instant Messenger 2.0 (freeware)
Dunce 2.52 (freeware)
Gatekeeper 1.0 (freeware)
Get Right 3.31 (shareware)
Go!Zilla 3.3 (freeware)
MYOB Accounting Plus 8.0 (demo)
NexEncode 2.0 (freeware)
Shockwave 7.0 (freeware)
Visual Calendar Planner 4.4 (shareware)
Webferret 2.7 (freeware)
WinGate 3.0 (shareware)
WinAmp 2.91 (shareware)

READ ME FIRST!

► windows users

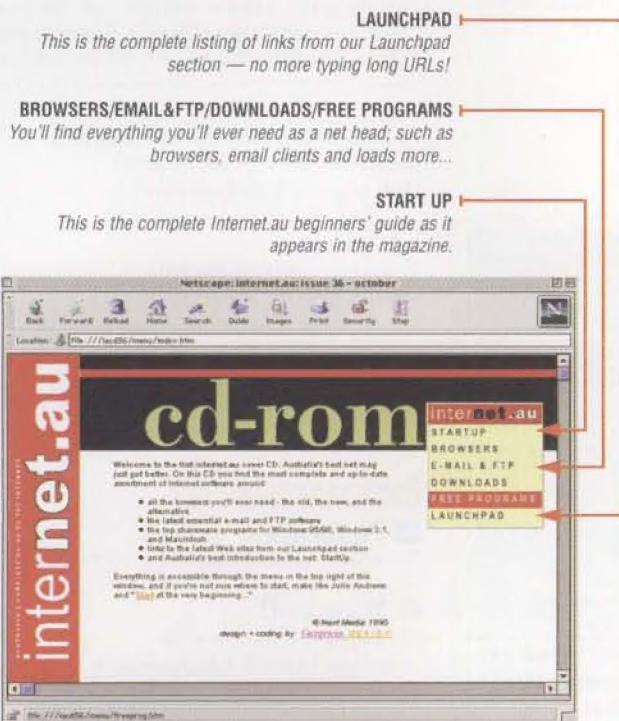
This cover CD-ROM has been designed to use the Windows 95 autostart feature, so when you insert it into your computer, it will automatically start the CD interface. If you have disabled autostart, you will have to start it manually.

This is easy enough: just open **My Computer > CD-ROM drive (iacd36) > go.bat**

If you don't have a version 4 browser (or any browser at all) you can find a good selection in the BROWSERS\WIN95 or BROWSERS\WIN31 directories.

The README.TXT file on the CD explains which file represents what browser.

► what you'll see...



This is the home page for access to everything on the Internet.au CD-ROM

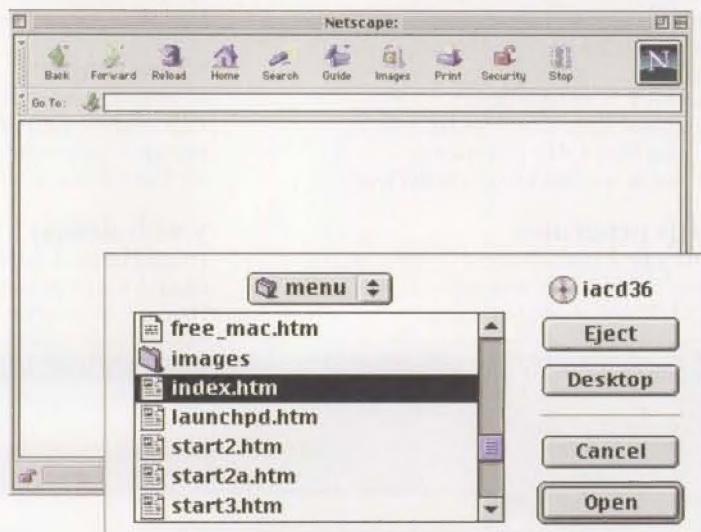
► mac users

We packed so much software onto this CD that there wasn't enough room for a separate Macintosh partition. But don't worry, as long as you have Foreign File Access enabled in the Extensions Manager Control Panel, you'll be able to see everything on the disk — including the Mac programs.

To access the CD-ROM interface:

1. Insert the CD-ROM into your Mac
2. Launch your (version 4) Web browser
3. From the File menu, choose Open Page and open the file called **INDEX.HTM** in the **MENU** directory of the CD.

If you don't have a version 4 Web browser installed, look in the BROWSERS/MAC directory for a good selection.



You'll have to open the **INDEX.HTM** file from within your Web browser.

Oops! Unfortunately there are errors on the Binhex 5.0 preventing it from downloading properly. We're sorry and we'll definitely have it on next month's disc!

contents cdROM

windows 3.1x

Windows 3.1x

browsers



Netscape Communicator 4.08 (freeware)

Microsoft

MS Internet Explorer 4.1 (freeware)
MS Internet Explorer 3.0.1 (freeware)

other

Opera 3.51 (shareware)

email/ftp/chat

email programs

DTS Mail 2.20 (30 day trial)
Eudora Light 3.06 (freeware)
Eudora Pro (3.03) (30 day trial)
Mail Cat 2.7 (shareware)
Mail Gate 2.59 (shareware)
NetcGold 3.02a (commercial demo)
Pegasus Mail 3.01b (freeware)
Virtual Access Workshop (45 day trial)

ftp programs

Cute FTP 2.0 (shareware)
Drag N File 2.0 (shareware)
WS FTP Lite 4.60 (freeware)

chat programs

AOL Instant Messenger 1.7 (freeware)
Interent TeleCafe 2.40 (shareware)
ICQ 1.11 (freeware)
mIRC 5.5 (shareware)
PowWow 3.1 (freeware)

other programs

games

Acropolis Internet Casino 1.01 (freeware)
Net Trivia 1.31 (shareware)
Ultimate Euchre 2.1 (shareware)

miscellaneous

ACDSee 2.1 (shareware)
LView Pro 1.2 (shareware)
Midi Gate 8.6 (shareware)
MP3 Wolf 1.03 (shareware)

newreaders

Free Agent 1.11 (freeware)
OUI (Offline Isenet Interface) 1.9 (shareware)
PluckIt 3 (shareware)
SB News Robot 6.1 (shareware)

web design

DominHTML 3.7 (freeware)
FlexEd 3.2 (shareware)
Hippie 5.0 (shareware)



▲ The latest version of WINAMP 2.91, the greatest WAV, MP3 and CD player around. Groove to your choice of music without leaving the work station.

HotDog Web Editor 2.55 (shareware)
PowerWeb 98 1.2a (shareware)
Web Express 3.0 (shareware)

utilities

Windows Commander 3.03
Winzip 6.3

macintosh

browsers

Netscape Communicator 4.5 (freeware)

Microsoft

MS Internet Explorer with
Outlook Express 4.5 (freeware)
MS Internet Explorer 4.5 (freeware)

other

Cyberdog 2.0 (freeware)
MacLynx 2.7.1 (freeware)

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| Name | Address | Source |
|-------------|-----------------------|-------------------|
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| Vince Emery | v-emery@ix.netcom.com | internet @ddress. |
| Vince Emery | v-emery@emery.com | Bigfoot |
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email/ftp/irc

► email programs

- Mail Agent 1.2.3 (commercial demo)
- Spam Trasher 1.0 (shareware)
- Outlook Express 4.5 (freeware)
- Claris Emailer 2.0 (commercial demo)
- Email Effects 1.5.5 (shareware)
- Email Merge 1.7 (shareware)
- eMerge 1.5.4 (commercial demo)
- Eudora Light 3.1.3 (freeware)
- Eudora Internet Mail Server 2.21 (demo)
- Eudora Pro 4.02 (30 day trial)
- Mailsmith 1.1.1 (commercial demo)
- Mulberry 1.3.3 (commercial demo)
- Notify Mail 3.1.1 (commercial demo)
- POP Mail 2.3 (freeware)
- PowerMail 2.2 (commercial demo)
- Pure Voice 2.0 (freeware)

► ftp programs

- Anarchie Pro 3.0 (shareware)
- Fetch 3.0.3 (shareware)
- Transit 3.0 (shareware)

► chat programs

- CU-SeeMe 3.1.2 (commercial demo)
- Savitar 1.0 (shareware)
- ShadowIRC 1.0.1 (shareware)
- Global Chat 1.3.3 (freeware)
- Ircle 3.03 (shareware)
- ICQ 1.6.7 (freeware)
- Snak 2.0 (shareware)

► irc programs

- Global Chat 1.3.3 (freeware)
- Ircle 3.0b10 (shareware \$15)
- Snak 2.0b4 (shareware \$25)
- ICQ 1.5.5 (time limited beta)

other programs

► utilities

- Adobe Acrobat Reader 3.02 (freeware)
- Compact Pro 1.51 (freeware)
- Decoder 1.3.7 (shareware)
- Dropstuff 4.5 (shareware)
- FreePPP 2.6.2 (freeware)
- Kaleidoscope 2.21 (freeware)
- Midnight Express 1.2 (shareware)
- StuffCM 2.0 (shareware)
- StuffIt Expander 5 (freeware)
- Tropicalities 1.0.1 (shareware)
- UIUtilite 3 (freeware)
- WebToys 1.6.1 (shareware)

► web design

- Adobe Pagemill 2.0 (commercial demo)
- Dreamweaver 2.0 (commercial demo)
- Live Stage 1.0 (commercial demo)
- Page Spinner 2.1 (shareware)
- Wallaby 1.17 (shareware)

► games

- Clan Lord 0.54 (commercial demo)
- Hunter Deer 1.0 (freeware)
- Kali 1.2 (shareware)
- MacQuakeWorld 1.1.5 (shareware)
- Mac BattleChat 1.0 (freeware)
- Mac Mame 0.34 (shareware)
- Pro Pinball: Big Race USA (demo)
- Spins 1.0 (demo)
- WadTool 1.02 (shareware)

► newsreaders

- Hogwasher 1.03 (commercial demo)
- MacSOUP 2.4 (shareware)
- MT NewsWatcher (freeware)
- NewsWatcher 2.2.2 (freeware)
- Picture Snooper98 1.1 (shareware)
- YA Newswatcher 4.0 (freeware)

► miscellaneous

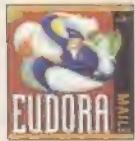
- Extensis PhotoGraphics 1.0 (shareware)
- FireWorks 1.0
- LiveStage 1.0 (shareware)
- MacAmp Lite 1.0 (shareware)
- MacTuner 1.0 (shareware)
- MacZip 1.0 (shareware)
- MYOB Accounting Plus 8.0 (shareware)
- Player Pro 5.0 (freeware)
- Shockwave and Flash Player 7 (freeware)

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letters



The best letter to the editor every month wins a copy of Eudora Pro 3.0, courtesy of Lidcam. This month's winner is Jill Carroll - At what cost?

In the name of progress?

For the past two issues, I have received much feedback to my letter on whether we should design for 3.0 browsers, but the letter in the March 1999 issue by Malcolm Pinnell has caught my attention. Mr Pinnell, is suggesting that "artistic wizardry" is not important, and that sites are more about content than presentation. He is wrong beyond belief. As a designer, the client pays for you to create the site so that it stands out above everyone else's. Presentation is what advertising is about. Take TV commercials, and how they captivate your attention with off-the-wall humour or special effects. The site's design is the very thing that comes into play, as it showcases the product with visually stimulating effects.

4.0 browsers allow Web developers to captivate the audience and enable them to interact with the product rather than read mindless blurbs on how great the product is. If you could interact with something that you plan on buying via the Internet then isn't it worth the ten minutes it takes to install a 4.0 browser?

3.0 browsers were great in their day, but there are reasons on why 4.0 (and soon 5.0) browsers exist. It's all about technology and how we can make life that much more comfortable whether it be by purchasing products or enjoying a Web site devoted to the latest band.

My original email was to bring something like this to readers' attention, and ask them why exactly should I should persist in cradling 3.0. So far, the only response worth

noting has been the one I received explaining that in some companies it's not cost effective to upgrade.

The 3.0 generation really need to stop fighting progress and ask themselves exactly why they are still using 3.0? It's not because of the technology involved in using the browser, it's more to do with financial factors or lack of knowledge. If you persist in using 3.0 browsers, and argue that Win 3.11 users are still out there and deserve equal treatment, then so be it, that's your opinion but one year from now, when your client comes screaming into your office demanding explanations as to why their 3.0-compliant site that you created six months ago is boring compared to the competitor's, you try and explain the fundamentals of 3.0 technology to him while you explain where his \$6K went.

I will develop sites for 3.0 browsers if the client agrees that they want to cater to these people, but as of yet I haven't seen a client who has gone out of their way to make sure their site is 3.0-compatible. Progress will always shape the winner, and we can debate on whether or not it's the best thing until we are blue in the face; bottom line: 3.0 will die and 4.0 will prevail. It's now just a matter of people choosing to fight it or just accept it.

Scott Barnes
scott.b@staff.logicworld.com.au

At what cost...

Jeremy Lunn was right in saying that AOL isn't a very good ISP (Letters, IA, Jan 1999). AOL disconnects constantly, those who use the chat rooms (not for the faint-hearted) without

<http://www.i-net.com.au/letters>

What's your opinion?

Whether it's a love letter or a flame letter send it to:

letters@ia.com.au or by homing pigeon:
internet.au, 78 Renwick St, Redfern NSW Australia 2016

upset that his program has been used for such purposes and is trying to make the next release (NetBus 2.0 Pro) harder to make a Trojan out of.

In the article it mentioned that "most quality virus scanning programs will detect the software". This may be true for Back Orifice, but there are many other Trojans (and more being made) that might not be detected. These programs are a cause for concern, as many of them give anyone who has the client software the ability to delete files, run files, look at your saved passwords, open your CD-ROM drive, write text on your screen, listen in to conversations (if a microphone is attached), disable keys, kill processes, even get a screen dump — and more. If these things aren't enough to make you want to find some better protection, remember there are more Trojans being released all the time, with better, and deadlier features. The best protection? Don't run ANYTHING you don't trust, and haven't checked with a virus scanner.

There is an alarming number of people with Trojans on their systems and there are even more that don't even know they are infected. I recommend you take the following steps as a quick check to see if you possibly have a Trojan on your system.

- 1) Close all your programs down
 - 2) Open a MS-DOS window from windows and type the following command: netstat -a
- If anything comes up, you could possibly have a Trojan and you should update your virus checker and seek help.
- David Meggyesy
david.m@bigfoot.com

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editorial



RU OK 4 Y2K?

So, we've been thinking about Y2K all too much in preparation for our special issue, but what's your excuse? Considering the massive number of people who've been giving us their well-considered (and not-so-well-considered) theories about New Year's Eve 2000, we're just waiting for the study that shows Y2K has replaced sex as the thing people think about the most. But do you have your facts straight? Perhaps you should take our spot test: if you answer a, b or c to any one of the questions below, go straight to our Y2K feature immediately, do not pass go and do not collect \$200 (unless it's in gold bullion).

Y2K pop quiz

1. Is the millennium bug

- a. a coding 'efficiency'
- b. the new pandemic sweeping East Africa
- c. the fourth rider of the Apocalypse.

2. What will you be doing on New Year's Eve 1999?

- a. swilling champagne on the Concorde while flying into the new year
- b. staggering along a pavement somewhere, drunkenly abusing your analogue mobile
- c. standing over your hoard of canned cannelloni, loading and re-loading the 7.62 mm bullets in your AK-47 while mumbling something like "As God is my witness, I'll never go hungry again".

3. What's your worst case scenario for January 1, 2000?

- a. having to run Norton Utilities on your PC while nursing a hangover straight from *Don's Party*
- b. having to walk up the 12 flights to your apartment and barricading the door, before realising that you don't have any food apart from last night's pizza remnants
- c. eating the children. It's kinder in the long run.

While we're on the sad humour trip, you should see the bumpf we've been sent as millennium bug PR products. First came the Millennium Bug Catcher, then the Millennium Bug Spray (just a basic aerosol can with nothing in it... oh, ha ha) and how could we forget the Maker's Mark's Millennium Bug Cufflinks (considerably more stylish than any of the above). My favourite has to be the Federal Government's year2K industry program's Millebug clock (yes, this is your tax dollar being spent here) which is shaped like a bug, and tells me how many days I've got before the big 1/1/00. If that's the best they can do, then we've got trouble ahead, me hearties.

But no matter where New Year's Eve sees you, keep an eye out for us. We'll be the ones running around madly, screaming: "We haven't prepared! Help! We had deadlines to meet, dammit! Give me that can of cannelloni!" And be kind; if you're fresh out of cannelloni, a beer will do. We'll be needing it. Would you consider a swap for a Millebug clock?

KATE CRAWFORD
Editor

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a special report

news

Going, going gone... Net companies sell out

The sale of Netscape to AOL late last year seems to have triggered a feeding frenzy in the online world with billions changing hands as some of the most high-profile Web sites sell out. It's an unprecedented period of consolidation for the online world with many cashed-up offline companies paying out big dollars to pick up some of the Web's biggest names.

USA Networks takes Lycos

In a move that seems set to create a new online super-power, USA Networks has taken a controlling interest in one of the Web's most valuable properties — Lycos. USA Networks already owns a number of high-profile sites such as the Home Shopping Network and Ticketmaster online-CitySearch. USA Networks' Chairperson Barry Diller now finds himself the latest member of a new, exclusive club of Internet media supermoguls, with the value of the new company estimated at around \$US18

billion. The 'new' USA Networks will be co-chaired by Diller and Lycos CEO, Robert Davis, who stays on as President and Chief Executive. Under the takeover deal, USA Networks will end up with a 61.5 per cent stake in the online portal. In recent months, Lycos has itself been acquiring a considerable amount of online properties, most notably with its purchase of the Wired online sites, wired.com, hotbot.com, suck.com and webmonkey.com. The merger will give Lycos new promotional avenues in association with USA Network's extensive offline media holdings. Diller has said that he plans on promoting the Lycos brand through his TV network and other assets such as Ticketmaster. USA Networks owns a network of TV stations that is accessible to around 90 per cent of the US population with stations such as the USA Network, the Sci-Fi Channel, Studios USA, and USA Broadcasting.



GeoCities gets the Yahoo! treatment

In a move that is sure to consolidate Yahoo!'s position as the world's most prominent Web portal, the company has purchased the free Web site hosting service GeoCities, for \$US3.56 billion. GeoCities is the largest free Web hosting site in the world with around 3.5 million members, making it an online powerhouse in its own right. The merger with Yahoo! is likely to help consolidate this position.

Excite sells for \$US6.7 billion

In an extremely surprising move, US cable Internet com-

pany, @Home has agreed to purchase the Excite corporation



for a price that is nearly twice its current market value. The move will strengthen the already impressive online power of @Home, which is being backed by US Telecommunications giant, AT&T. The purchase of Excite will give @Home a significant online property to complement its stature as a leading supplier of broadband Internet access. The move also strengthens AT&T's position in the Internet market to make it a leading player in the emerging broadband marketplace. Linking the reach of Excite's portal with @Home's broadband connectivity and AT&T's infrastructure will give the company a leading edge that can be matched by very few in the industry.

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news

Amazon charges for location



Online book retailer, Amazon.com has admitted to selling prime spaces for book placement on its popular Web site. According to a report in online news service Wired.com, Amazon charged book publishers up to \$US10,000 to feature their books in advantageous locations on the site, including

its 'highly recommended' section and even its "Destined for Greatness" area. Although the 'pay for placement' scheme may seem to challenge the site's perceived editorial independence, Amazon execs said they wouldn't have featured books that weren't deemed to be worthy. Since the revelations,

Amazon has written a new policy that will see all paid placements being acknowledged on the site, beginning March 1. Amazon has also changed its policy on book returns, allowing for any Amazon-recommended book to be returned, no matter what condition the book is in.

Oz Internet usage booms

Internet research firm www.consult has concluded its latest survey of 26,000 Internet users, with its findings confirming the expected boom in Australian Internet use.

Australian Internet users now top the two million mark, the figure having doubled in the past twelve months. The number of businesses that have their own Web sites also doubled, with the number of sites now standing at 48,000, while sites managed as portals by businesses numbered 50,000. The survey also found that Internet usage specifically for business

lag behind as financial transactions form a small part of business and consumer use of the Internet.

The Internet Service Provider (ISP) market also showed marked growth, with a further 90 new ISPs adding their presence to the 550 already operating.

The market in Australia is also increasingly fragmented, with 640 ISPs catering for the Australian market. Telstra Big Pond and OzEmail, controlling 20 per cent and 27 per cent of the market respectively, are the industry's leaders, with the

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Welcome to www.consult, the research and consulting group. Since 1995 we have been dedicated to providing products & consulting services.

purposes continues to grow, up by 25 per cent from 1997, with a further 13 per cent of users logging on to work from home.

While usage of the Internet has increased, the net benefits to businesses attempting to build an e-commerce platform

next largest ISP only handling a mere 5 per cent.

Dial-up Internet use still dominates the business market, with as many as 100,000 companies taking advantage of untimed local calls to access their ISPs.

Packer discovers gambling online

Hard on the heels of an announcement of a 14 per cent drop in Kerry Packer's Publishing and Broadcasting Limited's (PBL) profits, the company has announced that it is investigating plans for a float of 20 per cent of PBL Online. PBL Online is the Internet-based arm of the Packer media interests that controls its joint venture with Microsoft, NineMSN.

The announcement coincides with industry advice from investment analysts that favour a merger between Crown Casino and PBL. Key figures within the Packer empire have said that the merger and subsequent float could form the basis of a move into online gaming.

Commenting on the possible float, chairman of PBL Online, Daniel Petre, said that it would provide Internet-sourced revenue with which to fund future online activities. "At least then you are doing deals that are like-for-like and are using the same valuation processes," Petre said. The decision could provide a revenue stream for

PBL Online's move into Internet gambling.

Jamie Packer, executive chairman of PBL, has said the merger "would provide substantial cross-promotional opportunities and synergies, such as Internet gaming". Recent reports into the Crown/PBL merger by investment analysts Rothschild, Grant Samuel & Associates and SG Hambros put PBL Online's potential value at around \$250 million.

While some news reports have suggested that the announcement was designed to draw attention away from PBL's release of its interim profit figures of \$100 million, a 14.2 per cent drop in profits, Chief Executive Nick Falloon denied this, blaming increased broadcasting costs and Channel Nine's \$10 million Commonwealth Games deal for the slump. Falloon added, "We don't have the need to go and float a small percentage just to grab cash, but we want the value recognised and want the same Internet currency to help us do deals".

e-commerce report

Big venture capital in Oz

Technology Venture Partners (TVP) have just announced that the first closing figure of its new fund (known as TVP#2) is \$20 million — and it's ready to be invested into young Australian businesses. Moreover, the final closing figure of the fund is looking set to top \$45 million. This is welcome news to many Australian companies and start-ups who have complained of the scarcity

of venture capital in this country. John Murray, the executive director of TVP said the release of the funds showed that the Australian market was becoming more open to venture capital and there were more opportunities for Australian IT companies. "Essentially, up until now, there have been limited funds available for early stage, Australian technology-oriented busi-

nesses. This new fund is further legitimisation of the sector's coming of age and evidence that there is capital available." The first two companies to receive funds from TVP#2 are imTEK Australia and NetPort Systems. These companies plan to use the cash injection to develop export opportunities for their products. So, if you think your company (or perhaps just your great idea)



needs to form some financial partnerships, it's worth checking out TVP's site:
<http://www.tvp.com.au>

E-shop for Mac?

While Apple is keen to promote its own venture into e-commerce, it isn't the only company to be selling Apple computers on the Internet in Australia. Canberra-based Apple retailer PC-Tech managed to beat Apple to the punch by launching its own online Apple retail site. Called the E-Shop, the PC-Tech site was also created using WebObjects and features user-friendly navigation and an ever present purchase total to remind you how much you're notching up on the plastic. Ian Lim, System Development and Corporate Consulting team leader at PC TECH said the site was created in response to the structural changes occurring in the US computer retailer market. Lim said PC Tech has noticed that many US retailers were becoming marginalised because of Internet shopping and that the company was determined to stay competitive in the new marketplace. "We were aware



of Apple's plans to do the same thing and made sure that we got in ahead of time to make sure that we were still in the running after the market changed." When questioned about how he felt about competing with Apple on the Web, Lim said PC Tech's site was very competitive. "The biggest thing that we have going for us is that we sell non-Apple as well as Apple products. We have 1500 items in our database, whereas Apple would only have around a hundred," he remarked.
<http://eshop.pctech.com.au>

Apple launches into e-commerce

While Apple continues to impress the global market with new product launches, Apple Australia has announced some welcome domestic news with the launch of its online retail offering, AppleStore Australia.

AppleStore Australia follows the model set by Apple's US Web-based retail store. According to figures released by the company, the US store sold \$US12 million worth of products in its first 30 days of operation. The US AppleStore offers a wide range of services including a 'build to order' feature that is yet to be offered in Australia.

Apple Australia's Managing Director, Diana Ryall, said the company was keen to follow the US example and provide a convenient way to shop online: "With the outstanding customer acceptance levels generated by the US AppleStore, Apple computer Australia hopes to capture a significant proportion of Australian technology shoppers seeking the convenience of shopping for Apple products online." The site was designed using Apple's WebObjects development software and features Secure Socket Layer encryption in order to safeguard transactions.

browser news

plug-ins



Java

Developed by Sun

This will play any applet written in the Java language developed by Sun. Visit <http://www.javasoft.com> for more information. The latest versions of Internet Explorer and Netscape Navigator already support Java. Visit <http://www.gamelan.com> to see all kinds of tools, games and animations created in Java. Available for Windows 95/NT, Macintosh and most Unix.



Real Player

Developed by Progressive Networks

<http://www.real.com>

Real Player plays sound and video files on a Web site in real time. Rather than waiting for the whole file to download, as audio/video information arrives it is played live (streamed) to the visitor. Available for Windows 95/NT/3.1, OS/2, Mac and most Unix.



Shockwave

Developed by Macromedia

<http://www.macromedia.com>

Shockwave opens up interactive multimedia presentations created with Macromedia's Director in the browser. These might be animations, movie sequences, games or interfaces for playing audio/video. Shockwave for Audio allows music to be streamed from a Web site without the need for a special server. Available for Windows 95/NT/3.1 and Macintosh.



QuickTime

Developed by Apple

<http://quicktime.apple.com>

Opens up interactive multimedia presentations to play synchronised graphics, sound, video, text and music. A QuickTime VR (<http://qtvr.quicktime.apple.com>) component lets users enjoy a 360-degree view, and view 3D objects from all angles, including zooming and navigation from scene to scene. Available for Windows 95/NT/3.1 and Macintosh.



VRML

Developed by The Moving Worlds Alliance

<http://www.miningco.com>

3D worlds created with Virtual Reality Modelling Language can be viewed with a number of plug-ins offering various levels of functionality. For instance, you might be able to move through a building and interact with the objects inside (including sound players) and view animated 3D objects from any angle. For the latest VRML news take a look at the Mining Company site.



Flash

Developed by Macromedia

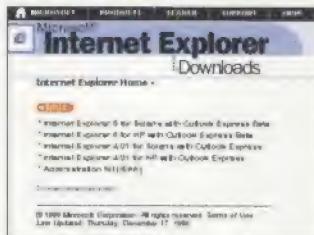
<http://www.macromedia.com>

Great multimedia in very small files. Mostly used for cute navigation bars. Includes sound capabilities. Available for Windows 95/NT/3.1 and Macintosh.

New Explorer for UNIX

Microsoft has released a new version of the IE5 beta just for the oft-forgotten UNIX users. The new version of the popular browser brings the functionality of the IE to the high-end of Web development platforms with versions also available for Solaris and HP-UX. Microsoft says the UNIX version of IE is especially tailored to provide easy installation, more functionality and increased interoperability with other popular UNIX Web development programs. The IE5 beta also features increased standards support with full compliance with XML and

DHTML standards, giving added interest to developers who are keen to test out their latest creations. In addition to the IE5 beta, Microsoft has also released a new Outlook Express beta for UNIX users, to make email a breeze. Take it all in at <http://www.microsoft.com/windows/ie/download/unix.htm>.



Shockwave turns seven

macromedia
SHOCKWAVE 7 & FLASH

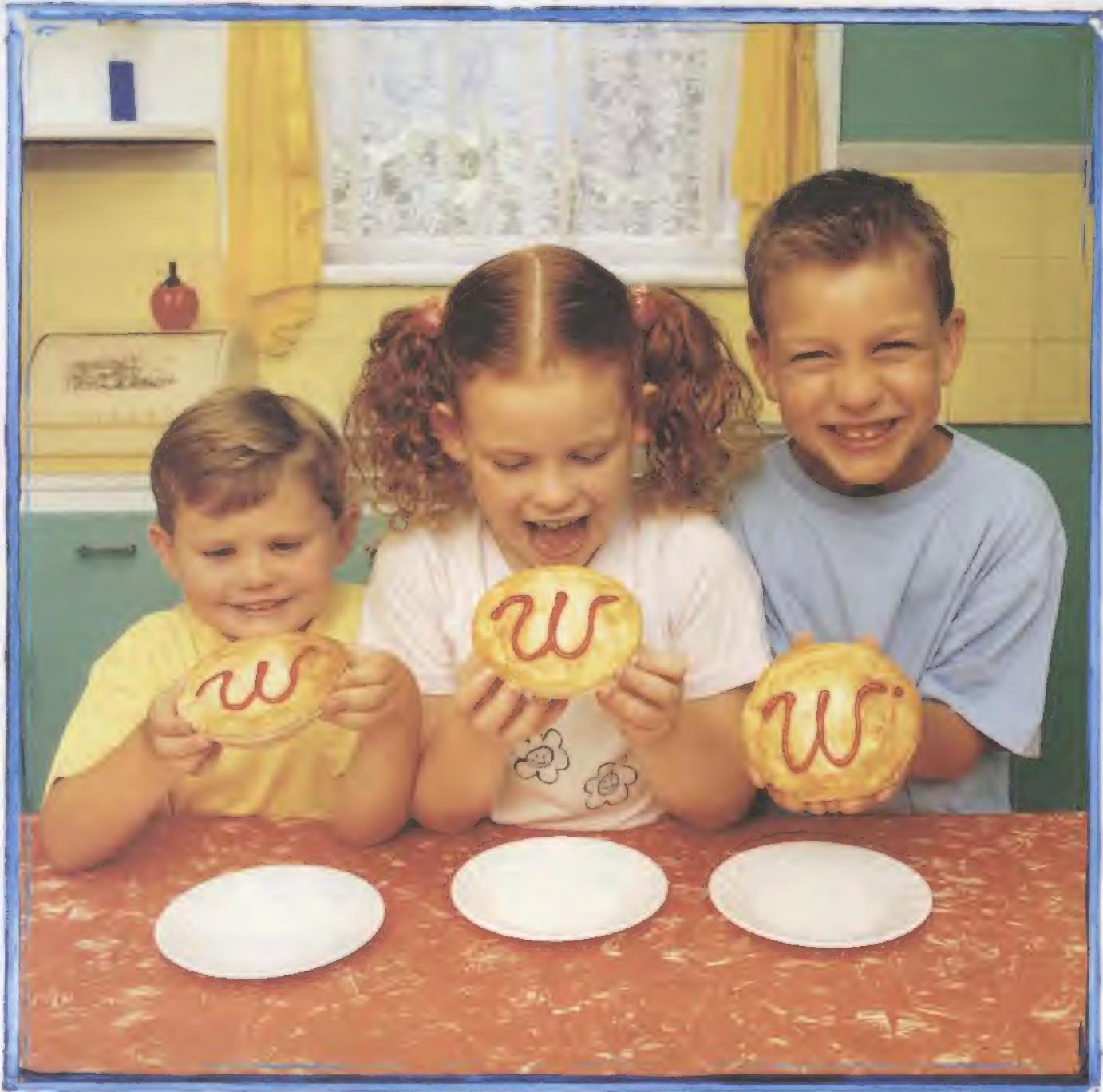
- Download now
- Product info
- What is Shockwave?
- What is Flash Player?
- Why use Shockwave?
- Gallery

When it comes to streaming multimedia content over the Internet, Macromedia Shockwave has certainly positioned itself as one of the more popular players. With its high level of interactivity and flexibility, Shockwave is one of the Net's most compelling applications, and it's just got even better. Macromedia has released version 7 of the Shockwave player software, which will give more functionality than ever. The latest version of the player comes with features that will allow you to download content faster and launch the player quicker. The program also features a new auto-update

feature that means you'll never have to worry about updating again. The people at Macromedia certainly think that the new player is the best thing since sliced bread with the general manager of Macromedia Web Publishing, David Mendels, waxing lyrical over the new release. "Shockwave 7 truly takes Web multimedia to the next level," Mendels commented. "Web consumers will reap huge dividends in terms of faster, more immediate playback, and nearly effortless installation and maintenance." It's all waiting for you at the Macromedia homepage: <http://www.macromedia.com>

Netscape goes offline

While the whole world is rushing into online publishing, Netscape Communications (<http://www.netscape.com>) has decided to take a step back and enter the world of publications. Netscape has teamed up with publisher IDG Books (<http://www.idg.com>) in order to start a new imprint, Netscape Press, which will publish a range of books and CD-ROM titles aimed at "consumers and enterprise users". The subject matter for the books will be, oddly enough, Netscape software products. Netscape senior vice president, Lori Mirek, said the new imprint was designed to offer Netscape's customers even better support for its products. "We want customers to have the information on our software available and accessible. Netscape Press fits into our company-wide initiative to provide customers with the highest level of product support. IDG Books Worldwide has a reputation for publishing high-quality books which makes this the right partnership to help customers in using and deploying Netscape products." Netscape says it expects the books to be in stores by autumn of this year.



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bookmarks

Dharma the Cat CARTOON GURU



Maybe it's true that on the net people don't know you're a dog, but what about when you're a cat? As Dharma the Cat so eloquently points out, that's an entirely different story.

Dharma is the star of his own Web site (<http://www.dharma-the-cat.com>) from which he spreads his modern Buddhist philosophy

"I think the most popular aspect of the site is using humour"

through the use of short cartoons featuring himself, his master Bodhi and his friend (and sometimes adversary) Siam. The cartoons are clever and funny three panel numbers, that have an important message hidden in their gentle humour. Ably helped along (or drawn, if you prefer) by his "right hand man" David Lourie, Dharma uses a modern communication device to spread an age old message. Is it working?

"It's going excellently — the net would have to be the best method I'm aware of for targeting mass audiences. The daily emails I get from visitors are a testimonial to how involved people get with the content on the site. I'm also happy to say that counter analysis is showing a lot of 'quality' hits, in the sense that people tend to stay on the site for long periods, and then return. Also, a lot of educators and students are using the site in regard to comparative religious studies and the like."

Dharma's site uses humour to demonstrate philosophical and spiritual principles while at the same time intending to amuse, a technique that places it somewhere between the more conservative spiritual sites such as BuddhaNet (<http://www.buddhanet.net>)

and pure humour sites such as the unredeemable yet apallingly funny Doodie.com (<http://www.doodie.com>). I ask Dharma which has been the most important aspect — education or entertainment.

"It's not that clear cut, but from the email responses I get, I think the most popular aspect of the site is using humour. But

the humour is just there to bring out the philosophy and spirituality — after all, thinking people like to laugh, too! The site is really just there for the benefit of humans — no matter what they get out of it. I'm only here to help wake people up to themselves and to the realities of life."

And it certainly seems to be working, with Dharma's site getting more than 20,000 hits since it opened and the number of daily visitors increasingly all the time. With all this going on, (plus the need for regular naps of the feline kind) I can't help but wonder if Dharma finds time to do anything else with the net.

"I don't, but David certainly does. He's always researching new topics for documentary films, and he even designs Web sites for other people." ♦

DHARMA'S TOP FIVE SITES

- Health For Humanity
<http://www.healthforhumanity.org/>
- International Institute for Philosophical Consulting
<http://home.interlynx.net/~harrisin>
- Petnet
<http://www.petnet.com.au/>
- Gerardus' Grist
<http://www.geocities.com/~gerardus>
- Answerman Service
<http://www.allexperts.com/>

reality bytes



■ "Even if you ripped out the pages because you thought the book was so bad, you can still return the pieces to us for a full refund."

— Amazon CEO Jeff Bezos announcing a new returns policy for the popular book retail Web site. Under the new policy, Amazon customers who dislike their 'Amazon recommended' purchase can now return the book regardless of the condition it is in.

■ "It got to the point where I grew up."

— Self-proclaimed hacker Se7en, after admitting that his claims of hacking and destroying the hard drives of more than 6000 child pornographers were in fact completely false. Se7en had been heralded as an anti-kiddie porn vigilante by mainstream media throughout the world.

■ "It will be some time before people will believe this is real. But in six to eight months, it will be an even bigger story, when the applications roll out."

— Kent Gilsen, founder of the Star Bridge technology company, commenting on the scepticism which has been directed towards its claims of building the world's smallest and fastest supercomputer, capable of performing 60,000 times faster than a 350Mhz PC.

■ "I now have to ask permission from my dean to read online poems that I specialise in. It's an extraordinary assault on people's access to information that is necessary for their profession."

— English Professor Terry Meyers on the recent US Federal court ruling that forbids Virginia state employees from accessing "sexually explicit communication" on the Net — which apparently includes the work of 19th Century poet Algernon Charles Swinburne.

■ "We were nowhere. We were the Johnny-come-latelies to the Internet."

— Microsoft vice president Cameron Myhrvold admitting that the company's contracts with Internet service providers were deliberately intended to limit users' ability to choose a browser other than Microsoft's Internet Explorer.

■ "We apologise for the inconvenience."

— A Buy.com spokesperson apologising for the online shopping site's mistaken listing of a computer monitor for \$US400 less than the wholesale cost. The mistake attracted more than 1600 orders, only 200 of which will actually be filled at the advertised price.

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net gamer

Quake Arena — sassy!

id has unveiled Quake Arena to hordes of eager fans and the response has been a unanimous wow!

Quake Arena is a tip of the hat to the one aspect of Quake and Quake II that keeps them popular after some time into their respective releases — multiplayer mode. Rather than the focus being on the single player aspects, Quake Arena is pure multiplayer, whether that be

against bots or other human players. The other big surprise of Quake Arena is that it will be simultaneously released on Mac and PC — perhaps not that surprising given the performance specs of the new-look Apple Macintoshes.

Although id has candidly admitted that it doesn't expect sales to match that of Quake II, considering the new game will feature



24-bit colour, curved surfaces, volumetric fog, mirrors, and drastically higher

poly counts, it stands a good chance of doing pretty darn well.



Unreal Tournament

Although it has been pipped at the post by Half-Life, Unreal is still an excellent (if system-crushing) 3D FPS title. GT Interactive has now announced the imminent release of Unreal Tournament.

Unreal Tournament pits you against the biggest scum of the galaxy in new types of contests and settings. The goal is to take the title of Unreal Grand Master, pitting your combat skills against (or teaming up with) a variety of bots or human players (or combos of the two). And as anyone who played deathmatch on Unreal knows,

these Bots aren't gentle!

Unreal Tournament has skill settings from novice to expert and even has a training mode to let you ease into the action. All the favourite Unreal weapons are back (with some improvements) and a couple of new deathdealers have been created including the frighteningly named Redeemer — deadly as heck, by all accounts.

Whether this will tear gamers away from Half-Life and have them putting their Unreal CDs back in the PC remains to be seen.

PlayStation on the Mac?

Despite some fairly serious threats of legal action by Sony, Connectix shipped its Virtual Game Station Version 1.1 for the Mac last January. The Virtual Game Station is a PlayStation emulator for the Mac, with a PC version being promised for later this year. Sony has

complained that the emulator will just create even bigger piracy hassles for the already beleaguered Sony but Connectix insist that the Virtual Game Station has software that prevents the use of pirated software. Get more information at <http://www.virtualgamenstation.com>

Savage graphics

Diamond Multimedia has become the first company to jump on the Savage bandwagon, with the announcement of plans to develop an AGP 4X graphics accelerator based on S3's new Savage4 architecture.

This new technology allows for the transfer of twice as many 3D textures as previous AGP 2X implementations and Diamond's Savage4-based graphics product will also use S3's

Texture Compression (S3TC) for 3D graphics to deal with larger textures.

Diamond's new accelerator is expected to come with true 32-bit 3D rendering, complete DirectX 6 support, AGP 4X technology and full optimisation for Intel Pentium III and AMD K7 processors, although you'll have to wait, as Diamond has not committed to any timeline for completion of the new product.

web in motion

The internet.au and Macromedia animation competition

THIS MONTH'S WINNER

■ Johnny Ice: Digital Detective

<http://www.secretcity.com.au/new/story.htm>

Johnny Ice is a combination of traditional comic-book storytelling with the most recent developments in digital graphics tools and programming. The intention is to retain the simplicity and familiarity of the traditional comicbook, with emphasis on text as opposed to soundtrack whilst utilising animation and interactivity to instill a new dynamic in the panels.

Johnny Ice is produced entirely in Flash using a Wacom tablet and pen, with a touch of Fireworks on the side. Johnny works well on the Web despite being a relatively large file (600Kb) through the use of staggered pre-loading, that should allow readers to view the entire episode smoothly after the initial loading is completed and they have familiarised themselves with the simple and effective navigation interface.

— Bill O'Donovan
bod@secretcity.com.au

Notes from the judges

While we have to agree that the Johnny Ice Flash animation is a fairly big file, it can't be denied that the resulting comic is well worth the wait. Although the style of art may not be to everyone's taste, the story is well-presented, with the excellent use of minor animations and interactivity creating a rather unique feel. We were particularly taken with the excellent way in which dialogue was achieved through the use of appearing 'voice bubbles' and we certainly await the next installment of Johnny Ice. One complaint might be the seemingly random use of sound effects on the navigation buttons when they aren't used elsewhere, but this is a minor quibble and it does not detract from the overall excellence of the work.

— KC & NH

Some stills from this month's winning entry...

COMPETITION DETAILS

Want to **WIN \$3134** in software? All you have to do is enter the wonderful world of Web animation...

WHAT YOU WIN:

A Web animation software pack from Macromedia and an *Internet.au Web in Motion* winner logo to stick on your Web site. In the pack:



DIRECTOR 6 is a powerful program for designing interactive multimedia. **RRP \$1595**

DREAMWEAVER is the first visual Web authoring tool designed for professionals. **RRP \$495**

FLASH 3 is the leading platform for creating and delivering fast interactive animations. **RRP \$495**

FIREWORKS provides a single environment for creating, optimising and producing Web graphics. **RRP \$549**

HOW DO I ENTER?

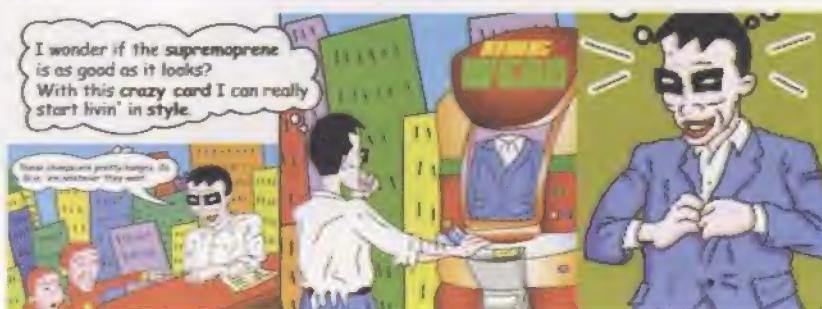
Now is your chance to impress us: your animation doesn't have to be long or memory-crunching, just effective. Check out the rules below and email your entry to editor@ia.com.au. Every month we'll publish the winner's letter and grabs from their work. If you don't win this month, you'll be in the running next month!

WHERE DO I START?

If you don't have a Web page, check out <http://www.vrjc.cc.lx.us/freepage.html> for a list of places you can pick one up free. If you want to use Dynamic HTML in your animation, download the Dreamweaver trial from <http://www.macromedia.com/software/dreamweaver/trial>. Try out the Flash homepage and download the demo version from <http://www.macromedia.com/software/flash/trial>.

RULES

1. You cannot submit an animation for which you've been paid.
2. You can use any animation program.
3. The animation must appear on a Web page.
4. You must submit the animation's URL, a description of how you came up with your animation, how you created it and why it works on the Web.



com.au

= australian business



Com.au means Australian business online.

It's the official, internationally recognised Internet space for business in Australia.

A com.au Internet name gives you greater control over your company's presence on the web. You have the security of knowing that com.au is an authorised, public Internet space that will never disappear. People will find your business faster because it's the first place people look for Australian businesses. Having a com.au Internet name gives you instant credibility. Only legitimate businesses that are registered to trade in Australia are accepted in com.au. Some Internet spaces are privately owned. Private Internet spaces may disappear if their owners go bankrupt. Some are simply obscure and people may have difficulty finding you. Choose a com.au Internet name and take control of your presence on the web.

Internet Names Australia Get Online

For information on the official com.au Internet Service Provider nearest to you, please contact:

Internet Names Australia

Telephone: 1800 354 595

Email: help@ina.com.au

URL: www.ina.com.au

Internet Names Australia is a division of Melbourne Information Technologies Australia Pty Ltd
ACN 073 718 793, trading as Melbourne IT



pre-cursor

THE FUTURE IS HEADING YOUR WAY....

Robot child cat is go!

As an early part of its CAM-Brain Project, engineering/hardware company Genobyte is working on an artificial kitten called Robokoneko (literally translated as "robot child cat").



The CAM-Brain Project is attempting to create an artificial brain with a billion artificial neurons by 2001. To give you an idea of the scope of this project, this is the same number of neurons as a human.

When complete, Robokoneko will be a robot kitten designed with an artificial brain made up of 32,000 evolved neural network modules (with each module containing up to 1,152 neurons). With a 'brain' of this size, Robokoneko will be capable of emulating all the behaviours of a normal kitten.

Robokoneko is initially being simulated in software, using a

physical reality simulation tool for the purposes of testing the "genetic algorithms" used to control the robot's motion. This approach to developing motion behaviors of the robot requires tens of thousands of iterations just to create simple motions such as walking, sitting down, and such like, and Genobyte believes that a real hardware robot would not be sufficiently reliable for this task. The use of simulator software also allows it to evaluate each iteration

without human intervention, which would have been the case for a real hardware robot. However, after initial behaviors have evolved in the system, a real hardware robot will be built with vision, hearing and other systems, supported by CAM-Brain Machine's evolved neural modules.

In essence, the Robokoneko project means that a possible system of AI is under serious development, with early results being available by 2000.

REALITY CHECK...

What: Robot kitten

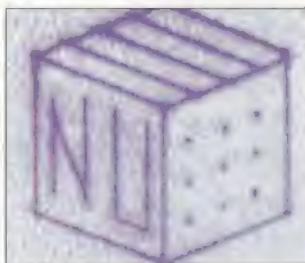
When: 1-2 years

Reality factor: ★★★

Still mightier than the sword

Researchers at Northwestern University have managed to build the world's smallest pen, capable of drawing lines that are no more than one molecule thick!

What the research team did was modify a commonplace Atomic Force Microscope to become a nano-scale "dip-pen". AFMs are typically used to trace the grooves of a sur-



▲ This cube, which has sides measuring 1,000 nanometres and lines 30 nanometres wide, was drawn using DPN technology. A nanometre is one-billionth of a metre

face, providing a 3D molecular topography map. However, the tip of the AFM has an annoying tendency to attract moisture from the air and form a meniscus at the point of contact. The researchers used this phenomenon to float other molecules on the surface of the moisture, creating a nano-scale pen. The material being used as 'ink' then flows through the water, which has formed a nanocapillary, allowing the instrument to write a very narrow line – what the team are calling Dip-Pen Nanolithography (DPN).

The main use of DPN is expected to be assisting in the creation of nanotech circuitry.

REALITY CHECK...

What: Dip-Pen Nanolithography

When: Now

Reality factor: ★★★★

Take two of these...

Administering complex doses of pharmaceuticals could be as easy as swallowing, thanks to recent developments from MIT's Microsystems Technology Laboratory.

The MTL has developed a microchip capable of releasing chemicals directly into the body. The chip, currently about the same size as a US 10 cent piece, contains small reservoirs that are covered by a thin gold cap. When an electrical charge is applied to a given reservoir, the cap melts, releasing the chemical inside.

The prototype chip is capable of storing 25 nanolitres of chemical in solid, liquid or gel form, at the moment divided into 34 separate reservoirs.



Researchers are theorising that later models can be made that are self-contained, with their own power-source and microprocessor. These chips could be programmed to respond to biosensor reading or preset programming to administer the release of chemicals. It's not too much of a stretch to imagine whole pharmacies being swallowed, without people worrying about when it's time to take their medicine.

REALITY CHECK...

What: Micro-pharmacies

When: 2-3 years

Reality factor: ★★★

hot products

Be still my beating watch

- Webmaster, \$125
- **Swatch**, <http://www.swatch.com/>

Developed by Swatch in conjunction with Nicholas Negroponte, this new line of Swatch watches, with the Webmaster being first off the production line, boasts a universal Internet time measurement. Basically, this is a single time zone designed specifically for the net, which divides the 24 hour day into 1000 "beats", all measured from a meridian at Biel, in Switzerland. The Webmaster also comes with an alarm, a timer countdown, stopwatch, alternate time zone, Y2K countdown and an animated dog for your viewing pleasure.

Heads up!

- Glasstron PLM-S700, approx \$4000
- **Sony**, <http://www.sony.com.au/>

Wow! Welcome to the future of video display. The Glasstron features two 0.7" 180,000 pixel LCDs in a lightweight, compact head-mounted display. When connected to a PC, VCR or DVD it can emulate a 800 x 600 SVGA monitor, or the effect of looking at a 52" TV from two metres away if you prefer it in home entertainment terms. Even better, the Glasstron comes with a battery pack for added portability.

Instant memories

- Digital-In Printer Camera, \$TBA
- **Fuji**, <http://www.fuji.com/>, (02) 9466 2600

One complaint about digital cameras is the need to transfer images to PC for general viewing. Fuji has addressed this problem by developing a digital camera with an in-built printer. Weighing only 610g, the camera can instantly print 46mm x 62mm pictures from its SmartMedia memory card, making this the best thing since the Polaroid.

Good, cheap and easy

- GT-7000 Scanner, \$399
- **Epson**, <http://www.epson.com.au/>, (02) 9903 9000

It doesn't get much simpler than the GT-7000 — all you do is place your item to be scanned on the bed and press Start. The scanner comes bundled with some extremely simple software which automatically detects the GT-7000's operation and launches the appropriate applications to grab the picture. With a maximum resolution of 6000 x 24000 dpi, this is certainly no toy — despite the extremely cheap price!

WEBMASTER SWATCH



GLASSTRON PLM-S700



DIGITAL-IN PRINTER CAMERA



GT-7000 SCANNER



Xtremely hot

- Xtreme P817 21" USB Monitor, \$4679
- ViewSonic, <http://www.viewsonic.com/>, (02) 9680 9600 (Chips & Bits Australia)

This is a serious monitor for the serious professional. The 21" P817 sports a resolution of 2048 x 1536, a ludicrously fast refresh rate, anti-glare ARAG screen treatment and Invar shadow mask technology for super-fine colour. The USB monitor also features a four-port USB hub to add some additional incentive to the imaging professional.

XTREME P817
21" USB MONITOR



Classic looks

- C900 Digital Zoom Camera, \$1699
- Olympus (R Gunz, dist), <http://www.gunzphoto.com.au/>, (02) 9935 6600

Compact and stylish — this is the way digital cameras should look. But the C900 isn't just a pretty face. The camera has a top grade 3X optical zoom lens, plus a digital 2X telephoto. It also has four image quality modes and can take SmartMedia cards up to 16Mb in size for that extra few holiday shots. All this in a unit that weighs only 270g? Wow.

C900 DIGITAL ZOOM CAMERA



Knock, knock...

- U. ARE. U, \$399
 - Digital Persona (BJE, dist), <http://www.bje.com.au/>, (02) 9858 5611
- U. ARE. U is a James Bond-style computer and Internet identification device. The unit is a USB connect mouse-sized fingerprint scanner that comes complete with software to digitise and compare fingerprint scans. The system also comes with a screen-saver than can be set to turn off only after the U. ARE. U unit has identified the user, making sure that no-one can see that sensitive email while you're off having lunch.

U. ARE. U



Oh, brother!

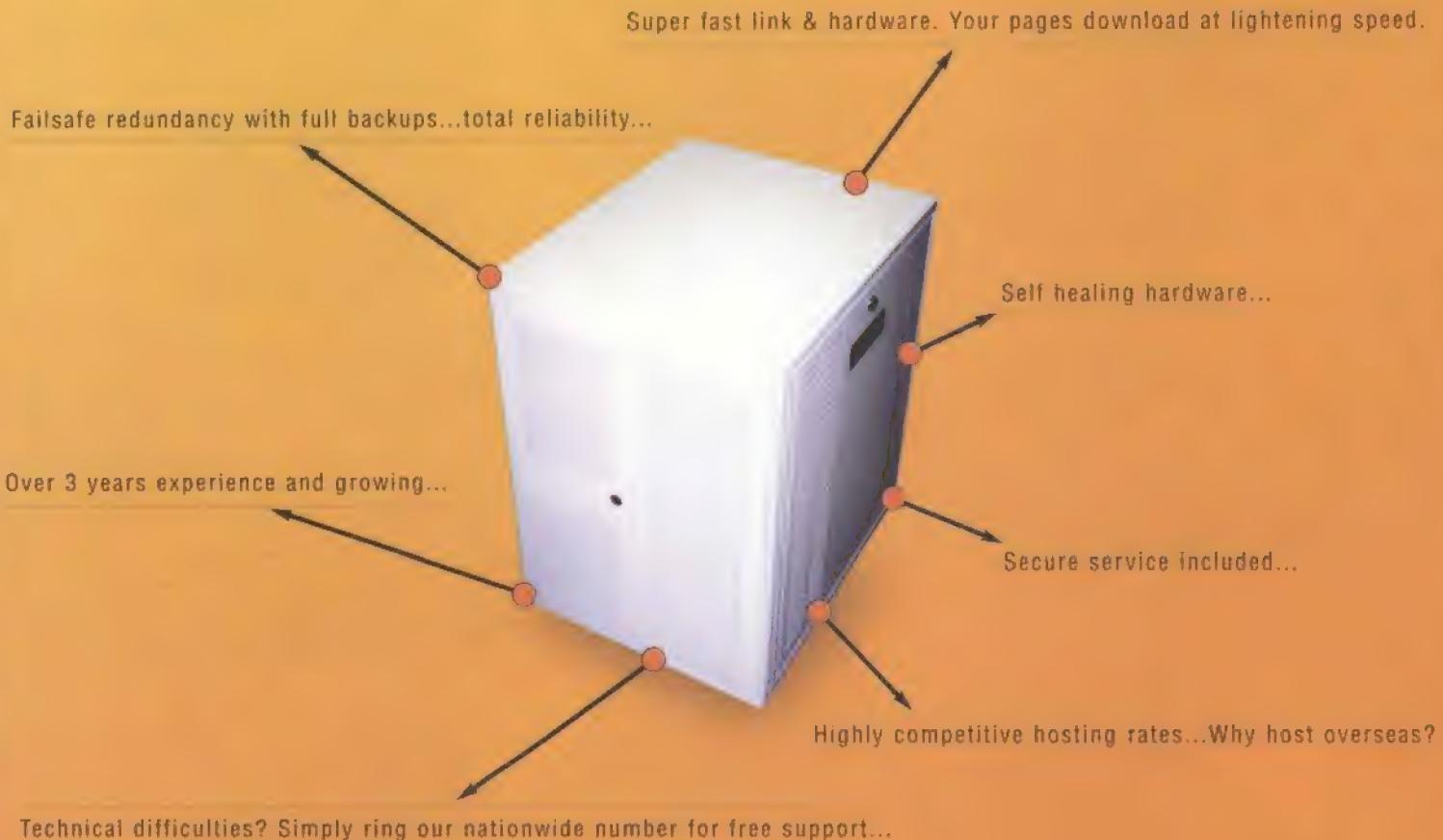
- MFC-7160C, \$1099
- Brother, <http://www.brother.com/>, (02) 9887 4344

It's basically an entire office suite in one package. The Colour Multi-Function Centre combines a colour printer, plain paper fax, colour copier, scanner, PC fax, speaker phone, a colour video printer and a message centre digital answering machine. The MFC-7160C is Twain compliant, can print four pages per minute in colour at 1440 x 7120 dpi and stores 99 minutes of messages. You can even remotely retrieve voice email and redirect faxes to a new location.

MFC-7160C



Meet your host...



Host1

LEADERS IN RELIABLE HOSTING

Join over 40,000 pages already hosted on our fast reliable servers.

Special offer: Swap an existing hosted site and we will waive all setup fees.

From \$34.95 for 25mb of disc space.

WEB DEVELOPER & RESELLER DISCOUNTS.

Host 1 is part of the Connect Infobahn Group. Ring **1300 655 590** today.

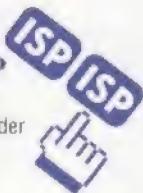
start up

Internet basics
What is the internet?



Choosing an ISP

Simple steps to find the best Internet Service Provider for you



Internet basics

Beginners start here...



You want to get onto the net, right? It's all very confusing, though — what's the difference between the net and the Web, for example? Well, while the World Wide Web is a major component of the net, it's just a fraction of the possibilities the net offers for communication.

How does it work?

The Internet is a global network of computers linked via telephone cables and optic fibres. Some of these computers are constantly connected to the Internet while others just drop in for a visit. Every computer permanently connected to the net stores (or hosts) a bunch of information which can be accessed by other net users.

To get to that information, you need to link your computer to another one which is already "online" or a part of the Internet. You can link two computers together with a cable, which is common in an office, or through a telephone line, which is what happens when you connect to an Internet

Service Provider from home. While you are connected to that other computer, you become one of the millions of computers which make up the Internet.

What's an Internet Service Provider?

An Internet Service Provider is a company with a fast computer which is permanently connected to the Internet through a big pipe. This company then sells you the right to connect to its computer and use a part of its pipeline to the rest of the world. Once you have an Internet connection you can access any of the information on any one of the million computers connected to the net. You can also provide your own information for other people to access.

To get your computer to talk to your ISP's computer, you need a modem, which helps to translate your computer's digital signals into the telephone line's analogue signals, and you need software which will help your computer speak to other computers. You

can buy a modem from any good computer store. Try and get one of the latest models for better speed and support. Some of the software you need may have come with your computer. Other pieces of software should be given to you by your ISP. Still others you can download (transfer to your computer) once you are connected.

Is that all?

In the next couple of pages, we explain how to find an ISP, how to use the Web, how to send email and how to transfer files across the Internet. These are the three main activities which people do on the Internet to start with. You can also read news groups, play computer games, chat online, have a video conference or use a phone to talk to people around the world. These topics will be covered from month to month in the seven page section called "Web Kit," starting on page 63. You can also download all of the essential programs from our cover disk.

What is the Web?

A quick tour of Web browsing. We show you how



Email

Electronic messaging made easy



Glossary

Making sense of silly jargon and acronyms



Choosing an ISP



Simple steps to finding the best Internet Service Provider for you

Your Internet Service Provider is going to be your permanent road-buddy for the entire length of your Internet journey, so it's kind of important that the company you choose is going to be a help to you and not a hindrance.

Cost

Most ISPs charge an hourly rate of between 60 cents and \$10. A few simply charge a monthly fee with no time charge. There are also on-and-off-peak rates and discounts for high usage. Some also have per megabyte charges. This refers to how much data you access. This can get quite expensive if you are downloading large files and accessing multitudes of Web pages. Other charges will be registration and set-up fees and there may be a charge for any extra storage space if you create a Web page. Some ISPs also charge for technical support.

If you mainly wish to use email and newsgroups, you can do most of this offline and you may find an hourly rate quite acceptable.

If you think you are likely to have midnight till dawn games fests, gab on about the *X-Files* for hours or spend ten hours researching the

mating habits of oysters which require you to stay online, a flat rate may be preferable.

Performance

Some computers on the Internet have bigger pipes — connections — than others (isn't it always the way?). The faster the transfer rate the better, and the closer to the 'core' or 'backbone' of the network the better. For example, an ISP with a direct route to the US is going to achieve better transfer rates with US sites. When a large number of people are all trying to access and download information at once this also slows the transfer rate down. For example, 100 people accessing a 64Kbps line is going to work better than 500 people accessing a 128Kbps line.

Getting on

When you dial your ISP there needs to be an available modem at the other end for you to connect to. If the ISP has too many users and not enough modems, you will often get an engaged signal and have to redial. This game of musical chairs can be extremely annoying, so ask your potential ISP about its modem to

user ratio. An acceptable rate is 1:15 but below 1:10 is preferable.

An ISP also needs to keep the machinery churning at all times. This is harder than it sounds: an ISP may be out of action for a few hours or experience equipment faults which will affect your ability to log on and access parts of the net. It is very difficult to know how an ISP rates with regard to this until you have used it for a while. If you can, ask people who have used a particular ISP about their experience.

Type of account

Most Internet accounts which you can get today are called PPP accounts. This stands for Point-to-Point Protocol. They are the preferred accounts for new users and are the most user-friendly. This type of account should allow you to do most of the things you wish to do on the net.

Customer support

Most ISPs offer initial customer support as part of the set-up or registration fee. However some ISPs are for experienced users only, so if you need support make sure the ISP can give it to you. Also check the hours of support and whether support is free or charged out.

Location, location

Most importantly, to avoid STD charges, choose an ISP that is in your local area. There are also a few Australian ISPs that offer a toll free number. For a list of ISPs in your area, see page 104. Choose an ISP that suits your needs and offers the best value for money. Your ISP should provide you with a starter package containing pre-configured software and be able to take you through the set-up step by step. If they can't, or if you are having problems, you can order a copy of the *internet@Net Starter Guide*, available for \$11.95 (see page 13 for contact details).

Make sure you can join the ISP for one month at a time to start with. That way, if you have problems, you can change services. Remember, your experience of the Internet depends on them.

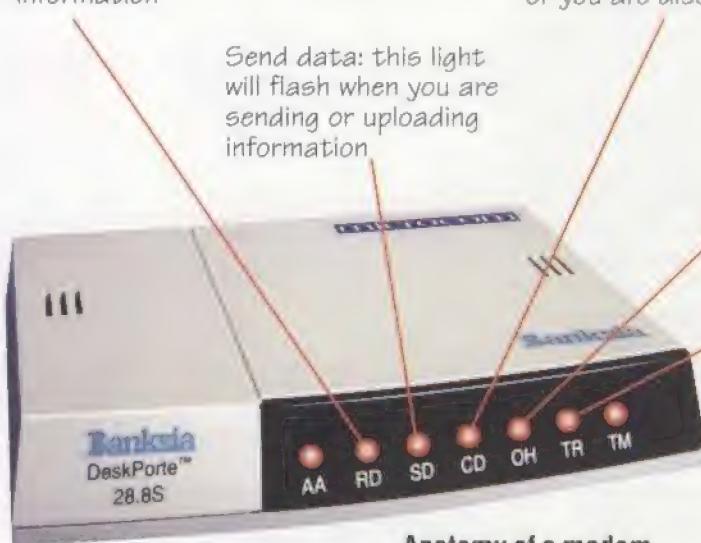
Receive data: this light will flash when you are downloading information

Carrier detect: if this light is off, your modem can't find your ISP or you are disconnected

Send data: this light will flash when you are sending or uploading information

Off hook: this light goes on when the modem "picks up" the phone

Terminal ready: this light indicates your modem is happy and raring to go



Anatomy of a modem

What is the Web?



A quick tour of Web browsing. We show you how...

The World Wide Web is rather like a huge electronic magazine with different pages stored on different computers around the world. To access the World Wide Web, you need software called a Web browser. The two most popular Web browsers are Netscape Navigator and Microsoft Internet Explorer.

Getting to a Web page

To get to one of the pages of this electronic magazine, you have to start up your Web browser and enter the address of the Web page. All resources on the Internet have a Uniform Resource Locator (URL) or address. An example of a Web address is <http://www.fake.com/directory/index.html>.

The http stands for HyperText Transfer Protocol. It tells your Web browser that this is a Web document and that it should use the hypertext transfer protocol to access the information.

The next set of words (www.fake.com) is the Web domain name for the server you are visiting. It is the address of the computer which is storing the information. Domain names exist so we poor humans can remember the addresses of all the computers on the net more easily. In fact, the address is a bunch of numbers, and the computer has to look up a big list of names to find the number which matches it. Anything after the domain name is the pathway to the exact directory and file the browser must access.

Using a Web browser

When you first open your Web browser it will automatically load the homepage (main Web page) of the browser's manufacturer. From the page that loads you can see the basic elements of a Web page. You have text and graphics, some of which are in a different colour. These different coloured items are hyperlinks to another Web page. If you click on one of them a new Web page will load.

What has been coined "surfing the Web" is linking from page to page — from hyperlink to hyperlink. You can go on an endless adventure from page to page, turning back if you come to a dead end or loading an

entirely new page altogether.

FTP, or file transfer protocol, is used to transfer files across the Internet from one computer to another. To download files, you need software called an FTP client, such as WS-FTP or Fetch, or you can also use your Web browser if you wish. Some of the computers connected to the net have large archives of files. These computers are called FTP sites. To download a file from one of these sites, you need to start up the FTP

client software on your computer and enter the address of the FTP site. An FTP address can look like this: <ftp://ftp.fake.com.au/pub/directory/file.zip>, although sometimes it will look like a regular URL.

| | |
|--|--|
| | Netscape Navigator: http://www.netscape.com/ |
| | Microsoft Internet Explorer: http://www.microsoft.com/ |

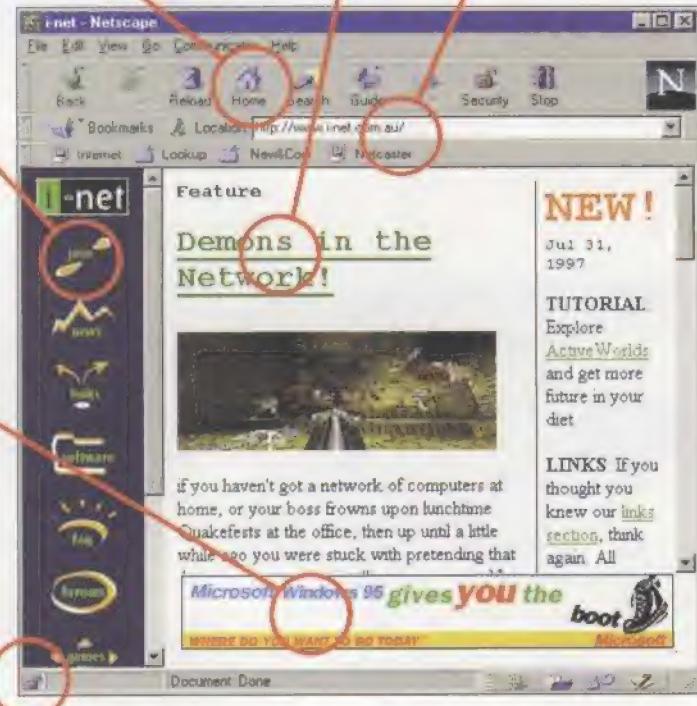
This is a link. Click on it and it will take you to another Web page. Links are usually a different colour from the rest of the text, unless the Web designer is extremely perverse. The cursor changes to a 'hand' icon where there is a link.

This is where you type the address of the Web page you want to visit

This is called a navigation bar. It's designed to help you find your way around the Web site. It's in a separate frame so it stays where it is even when other pages change. These pictures are links, too. Click them to visit other parts of the site

An ad in a non-scrolling frame.

This padlock tells you whether a site is secure — if it's open, don't send your credit card details



What is email?



Electronic messaging made easy

Email is an electronic version of sending a letter, only with distinct advantages — you can send it at any time of the day without leaving your home or office and it will arrive in the receiver's mailbox minutes later, even if the receiver lives on the other side of the world. (Mind you, the person still has to check their mailbox to get the message).

To use email, you need software called an email client. Popular email clients for PC are Qualcomm Eudora and Pegasus Mail. Popular email clients for Macintosh are Qualcomm Eudora and Claris Emailer. You can also use the email client which came with your Web browser if you wish to. If your ISP has provided you with an older email client or hasn't given you one at all, you can download the latest versions from the Internet.

Understanding email

Your email address is usually your user-name, followed by an @, followed by the domain name of the Internet Service

provider you are connecting through. If your name is John Doe, your dial-in name is johnd, and you are connecting through Fake ISP Inc, whose domain name is fake.com.au, your email address will be johnd@fake.com.au.

Fake is the ISP name, com is the abbreviation for company and au is the country code (in this case Australia). If you left out the .au then the email might be delivered to someone in the US if there is a fake.com domain there (as the US rarely uses its own country code). If instead of .au you put .uk then the email would be sent to England.

Sending and receiving email

To send and receive email you will need to start your email program on your computer. All of the e-mail shareware programs come with basic help files to get you started. You will have to ask your ISP for some of the variables, such as your POP account and email (SMTP) server if you weren't given this information when you joined up. Your email

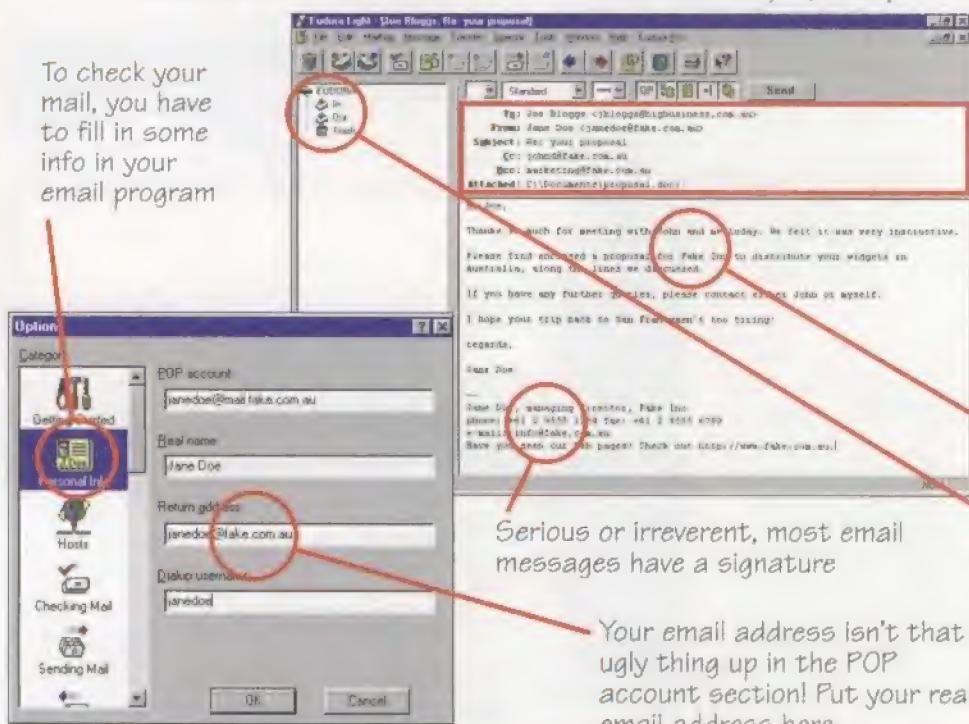
program takes care of everything behind the scenes once it has this information.

SMTP stands for Simple Mail Transfer Protocol and used to transfer email from server to server across the Internet. When email is sent to you, it is stored on the server until accessed by you. The address of the SMTP server is usually the domain name preceded by the word "email". For example, email.fake.com.au.

Your email program must use Post Office Protocol (POP) or Internet Mail Access Protocol (IMAP) to transfer the messages from the email server to your computer. Your POP account is usually the same as your email address.

| | |
|--|---|
| | Qualcomm Eudora: |
| | http://www.eudora.com/ |
| | Pegasus Mail |
| | http://www.pegasus.usa.com/ |
| | Claris Emailer |
| | http://www.claris.com/ |

To check your mail, you have to fill in some info in your email program



The head of the message. "To" and "From" are kinda obvious. "Cc:" means carbon copy. Joe will see that John gets a copy. "Bcc:" means Blind Carbon Copy. Joe doesn't know that marketing will see this message too. The attachment is a standard text document, written in a word processor

This is the "body" of the message

You can create as many folders as you like in your email program. It's especially handy to keep finance discussions separate from orchid hobby tips

Complete. Comprehensive. CompuServe.

Dependable information. In-depth forums on the subjects that interest you. The best source for news, research and professional discussion groups. Much more than just an internet provider.

It's the service that's got everything you're online for... e-mail, global roaming, the internet and exclusive areas. It's where information is organised for fast and easy access to save you time.



CompuServe

For Those Serious About Internet Online

For more information or to order a free starter kit (including free* time online), call 1300 55 55 20, fax +61 2 9855 6800 or mail the coupon to Locked Bag 2050 North Ryde NSW 1670

Please send me a free starter kit

Windows Macintosh

CD-ROM or 3.5" Disk

Please send an application for
a corporate account

Name

Position & Company

Street Address

Suburb

State Postcode

Telephone ()

CompuServe
Pacific

* This applies in the first month of membership only.
Free hours do not include Premium Services and online purchases.

Acronym Soup

Glossary



Confused about all those strange words?

ASCII: American Standard Code for Information Interchange — an ASCII file contains standard text characters as data.

ASP: Active Server Pages — an SSI language from Microsoft.

AFAIK: Shorthand for 'as far as I know', commonly used on IRC.

BTW: By The Way. A useful e-mail acronym.

CGI: Common Gateway Interface. Runs programs or scripts on a Web Server; commonly used to handle data from HTML forms.

DHTML: Dynamic HTML.

ETLA: A four letter acronym — or Extended Three Letter Acronym.

LOL: Laugh Out Loud, IRC term

FAQ: Frequently Asked Questions; files of these are kept in newsgroups so users don't need to ask again.

F2F: Face-to-face. Pertains to communication without computers.

FIF: Fractal Image Format — image compression and display method that delivers up to 50:1 compression, with view zoom ability for the pictures.

FTP: File Transfer Protocol. System for moving files across networks.

FWIW: For What It's Worth. Common net abbreviation.

GIF: Graphics Interchange Format — for storing and exchanging pictures.

GUI: Graphic User Interface.

HTML: HyperText Markup Language — the tags used to prepare information for Web pages, including text and links.

HTTP: HyperText Transport Protocol — retrieval method for other HyperText.

IMHO: In My Humble Opinion — commonly used on IRC.

IP: Internet Protocol — the main net protocol; also, an IP Network is formed around the exchange of data packets.

IRC: Internet Relay Chat — highly addictive live text-based communication.

ISDN: Integrated Services Digital Network — uses existing phone lines and computer networks to deliver fairly fast video, voice and data in standard form.

ISP: Internet Service Provider.

JPEG: Joint Photographic Experts Group — an image compression and display method; quality varies as some files can be reduced by up to 20 times their original size.

LAN: Local Area Network — when two or more computers are gathered together via cables.

MIDI: Musical Instrument Digital Interface — a standard protocol for synthesizers and computers to communicate, enabling musicians to compose on the synth keyboard and save the music information on the computer for manipulation in score writing programs.

MIME: Multipurpose Internet Mail Extensions — recent net standard for transferring sound and pictures by e-mail.

MP3: MPEG-3 — an audio compression algorithm.

MPEG: Motion Picture Expert Group — standard for encoding/decoding digital video.

MUD: Multi-User Dungeon, or Domain. Basically a net space, designed and inhabited by users who will look nothing like their MUD identities. Also called MOOs, MUSHes, MUCKs and MUSES.

NNTP: Net News Transport Protocol — transmission protocol for Usenet news.

OTOH: Net shorthand for On The Other Hand.

PERL: Practical Extraction and Report Language. General purpose language, often used for scanning text and printing formatted reports, often used to create CGIs.

PGP: Pretty Good Privacy. Encryption program.

PNG: Portable Network Graphics — a lossless image compression format designed to replace GIF.

POP: Point of Presence. Gives local access to a network service. Also, Post Office Protocol.

POTS: Plain Old Telephone System. Slang for the standard phone service. See PSTN.

PPP: Point to Point Protocol — a direct

connection to the net from your computer, via modem and phone line.

PSTN: Public Switched Telephone Network.

ROTFL: Rolling on The Floor Laughing. A step up from LOL.

RTFM: Read The F***king Manual.

Something often said to newbies by geeks, usually after a pointless question.

RAM: Random Access Memory.

ROM: Read-Only Memory.

SEA: Self-extracting archive — a compressed file that comes inside its own decompressor, so that it can expand itself without outside help (after you've told it to).

SHTML: Server-parsed HTML.

SLIP: Serial Line Internet Protocol — a dial-up connection to the net; older technology than PPP.

SMTP: Simple Mail Transport Protocol — transfer method for mail on the net.

SSI: Server Side Include.

TCP/IP: Transmission Control

Protocol/Internet Protocol — in combination, the networking method used by computers to contact each other over the net.

TIFF: Tagged Image File Format. Common graphics file format for still images.

TIA: Three Letter Acronym. These abound amongst netizens and tech-heads, often used in technical matters.

TTYTT: To Tell You The Truth. Common online shorthand.

URL: Uniform Resource Locator — the address system used on the Web.

VRML: Virtual Reality Modeling Language — a programming language for the creation of virtual worlds. Using a VRML viewer you can take a virtual tour of a 3D model building, or manipulate animations of 3D objects. Hyperlinks to other sites and files can be embedded in the world you visit.

WAN: Wide Area Network — a group of computers separated by great distances but joined by dedicated lines.

WYSIWYG: What You See Is What You Get. Used to refer to authoring tools which don't make you type in HTML.

Jive & Jargon

Tech Head

cross-posting: A posting sent to several newsgroups all at once. Not always necessary.

download: Loading information from another computer into your own; the opposite is upload.

emoticons: smileys :) etc.

e-zine: An electronic magazine.

flame: A message that 'burns' the person it is directed at, mostly publicly. Often random and pointless, especially in newsgroups.

FRAG: A noun referring to number of deaths you have caused. Internet gaming term.

freeware: Software and utilities made freely available. Although you don't have to pay any fees, freeware is still covered by copyright.

geek: Read all this and soon you'll speak like one. Maybe.

lurk: Those on mailing lists and online forums too timid to type.

mirror site: A net site that contains exactly the same information as another elsewhere in the world. Used to spread the load on popular sites.

Netiquette: The rules of the online game. Much of it is common sense — don't spam, cross-post, flame unnecessarily, etc.

Netizen: An active member of the net community. (see geek)

Newbie: A pejorative term for beginners on the net.

plug-in: An add-on feature for your browser that increases functionality, such as providing multimedia capabilities.

search engine: A program that searches indexes of addresses using keywords. The depth of the search is up to you and/or the extent of its index.

shareware: Copyright-protected software

that is publicly distributed on the condition that if a user trials a program and decides to keep using it they will send payment to the author.

Spam: Not spiced ham, but just as repulsive to most people. Spam is an unsolicited piece of advertising sent via email or posted to a newsgroup. Repeat spammers are often flamed.

Sysadmin: System administrator, or the one you call when your network goes down.

Sysop: System operator, or the one you call when a BBS goes down.

Telco: Telephone company. General term for Optus, Telstra or Vodafone etc.

vaporware: Software that either doesn't get far, or never makes it to the market.

warez: All kinds of software. Be sure to pronounce it as "wares".

applet: A small self-contained application which can run on its own or inside another program (eg a Web browser).

attachment: A file attached to email in the format it was created in, useful for documents and graphics in particular.

backbone: Main highspeed internet links between a country's major internet providers, eg. There is an Australian backbone and a US backbone.

bandwidth: The amount of stretch in a network connection — its maximum carrying capacity for data traffic.

baud: Modem speed measurement of one signal per second. 300 baud = 300 bits per second, but higher than 300 baud one signal may contain more than one bit.

binary: A file in pure data form, with no text — needs converting to be appreciated.

BinHex: Mac format for converting binary files into ASCII for transfer.

bit: A binary unit.

bmp: Bitmap — a graphics file.

bps: Bits per second — data movement speed on a modem, also Kbps (Kilobits per second) and Mbps for mega bits per second.

broadband: A high bandwidth network (>256Kbps).

cache: Small memory store for regularly accessed or recently used data.

client: An individual's computer and the program it uses to request information from a server computer/program.

compression: Making a file smaller by removing all the bits it doesn't need for faster transfer and/or storage.

cookie: A packet of data stored on your hard

drive by a Web site, which is sent back to the Web server when information is required.

domain: A part of the address hierarchy a machine is placed in; ie. berk.com.au is 'berk' in the com.au (company in Australia) domain.

domain name server: The computer that remembers the domain names of other machines and their IP address.

domain name system: System of converting numeric IP address to domain names and back again.

encryption: Method of coding data so that it can only be read by the people it is intended for (in theory).

firewall: Network hardware and software that limits access between an internal network and the rest of the Internet.

gateway: A machine connected to two networks; acts as a transfer point.

header: The top of an e-mail or newsgroup message that lets you know where the message came from and when it was posted.

host: An older name for server. Usually seen as "remote host".

hyperlink: A touch-sensitive spot on a Web page linking it to another page or site and...

hypertext: Text that includes hyperlinks to other documents.

java: A programming language used to write java applets (amongst other things).

javascript: A scripting language from Netscape, only vaguely related to Java.

mailing list: A list of subscribers to a discussion group, who all receive the discussion by mail; also used as a way of distributing newsletters.

majordomo: Stands for Master of the House. A common mailing list administration program.

modem: Modulator/demodulator — a device that converts digital signals to analogue (and vice versa), thus allowing transmission of data.

moderator: A moderator ensures all contributions to a newsgroup are suitable before posting them.

Newsgroup: A discussion group on a specific topic. Part of Usenet.

Ping: A data packet is sent out from your computer to a site or other user to test the performance of the connection; if the site isn't operating it fails, if the site is operating the packet bounces back and it Pongs.

port: The specific channel used by a network service, eg. Gopher uses port 70, Web sites use port 80.

proxy: A server used as a store for commonly accessed files. Speeds up net use.

root directory: The uppermost directory of a collection of files.

router: A device used to transfer packets from a computer on one network (LAN) to other computers on other networks via the fastest and most efficient route.

server: Any computer that stores information and makes it available to outside users.

streaming: A method of delivering data in a steady flow to perform a task 'live', such as playing sounds or tracking action in a networked game.

Telnet: Allows your computer to act like it is part of another machine so that you can log in.

Usenet: The network of discussion groups or newsgroups.

.zip: Software files compressed into ZIP format, ready for unzipping with PKUnzip before installing.

interview



Tiffany Shlain casts her vote

THE PRODUCER OF THE MOST POWERFUL WEB SITE AWARDS GETS BOLD

Tiffany Shlain is a busy, busy woman. For weeks at a time, her friends keep track of what she's up to in the pages of the *San Francisco Chronicle*, or sometimes on CNN. Otherwise it's a matter of going to the right parties and waiting for her to make an entrance with her handsome new husband, Ken Goldberg, a professor at UC Berkeley, in

Webbies from heading East. "Tiffany Shlain has done a tremendous job as the city's digital diva and we hope she will keep the awards where they belong," the mayor's press office said. The Bay Area won.

This hotly contested property is a native of Mill Valley, a comfortable middle-class enclave nestled in the woods of Marin County, north of San Francisco. Her earliest memories of being delighted with

is secretly most proud of is: "Being selected as Valedictorian Speaker at UC Berkeley."

So far, so fearsomely impressive. Doesn't this woman ever get a chance to learn from her mistakes? "Certainly", she laughs. Her most important insight to date: "Knowing when to quit." After leaving university, she worked for years on an independent film. It was called *Zoli's Brain* and dealt, appropriately enough, with a

"At a certain point, I was creatively as well as financially spent. Ultimately, it was just as significant to me to know when to stop as it was to know when to have the tenacity to persevere."

tow. Twentysomething, successful, connected, blonde and charismatic, Shlain embodies turn-of-the-millennium San Francisco. Little wonder that she is able to say: "I have actually found that being a woman director/producer has only worked to my advantage."

Case in point. In June last year, the *Chronicle* began a piece on her with these words: "Tiffany Shlain may be the only woman in the world who has Rudolph Giuliani and Willie Brown fighting over her." The mayors of New York and San Francisco both wanted to host the Webbies (<http://www.webbyawards.com>), an annual awards ceremony for Web sites produced by none other than Tiffany Shlain. New York offered Radio City Music Hall as a venue, but San Francisco fought back hard and fast. Mayor Brown offered his convention bureau, San Francisco Partnership and Multimedia Task Force, and pulled together what the paper called "an ad hoc group of multimedia mavens" to keep the

a machine are appropriately semi-rural: turning on a light switch at age four; turning on the ignition of a tractor at age 13. Her father is noted surgeon and author Leonard Shlain, and her mother is a psychologist. She's full of praise for them both. "My parents told me I could be anything that I wanted to be," she says. "That scope of possibility was awe-inspiring. Another encouraging fixture in my life is a Goethe quote that I have had hanging in my room since I turned on that light switch. It says: 'Whatever you dream or think you can do, begin it. Boldness has genius, power and magic.'"

At 17, boldness led her to cross borders with technology, and not for the last time. She was a student ambassador to the Soviet Union and launched a project to link American and Soviet students via modem connections. Next stop was film school. Being who she was, she topped her Department of Interdisciplinary Studies. Of all her achievements, the one Shlain says she

celebrated sculptor suffering from creative block. Analogous cracks were beginning to appear in the filmmaker's own life. While the film was dying a slow death in post-production, Shlain was featured as an exemplary Generation X achiever in a book called *Major in Success*. "I didn't have this blessed life," she told the author. "I was a waitress for four years. I got fired from a cocktail job. It was so embarrassing. Overcoming my technical fears about filmmaking was really hard." Even harder, Shlain discovered later, was admitting to herself that the project was stillborn. "At a certain point, I was creatively as well as financially spent. Ultimately, it was just as significant to me to know when to stop as it was to know when to have the tenacity to persevere."

So she stopped, and got a job as Web site design director for a print publication. It was called *The Web Magazine*, ironically enough. Knowing her background in film, the publisher made

Shlain a proposition. As she describes it to Jeffrey Zeldman of the Fifteen Minutes Project (<http://www.zeldman.com>): "He basically told me that they owned the word 'Webby', they had a minimal budget, and wanted to do an award show. This sounded very similar to the constraints I had been presented with in Indie filmmaking." Ayup. No budget? No problem. In 1997 she

Academy of Digital Arts and Sciences (IADAS, <http://www.iadas.net/>), an obvious nod to the Oscars but also a formalisation of the way the Webbies had been judged in 98 and 97. "An official academy of professionals is crucial to advancing innovation and providing creative leadership as the new media industry matures," she

"An official academy of professionals is crucial to advancing innovation and providing creative leadership as the new media industry matures."

brought in the first Webby Awards for less than \$50,000. Parent company IDG pulled the plug on the ailing magazine in 1998, but Shlain's cost-effective awards ceremony has lived on.

By 1998 the Webbies were a 3D affair — which is to say, 1950s-style red and blue glasses were handed to the audience, much to their general mirth. Mirth, in fact, is key. A rule which has become an institution is that acceptance speeches must not exceed five words. Take that, self-indulgent movie stars! Not only could Shlain get results fast

and cheap, she had demonstrated a gift for tongue-in-cheek insouciance which quickly moved the Webbies ahead of more pompous competition from the Cool Site of the Year. Awards shows, however, must walk a delicate line. The organizers have to be seen to be impartial without losing touch with the community. Nominations and awards need credibility before sponsors will pony up the necessary cash.

To pre-empt accusations of bias, in April 1998 Shlain founded the International



▲ The academy Shlain founded to help further the new media industry.

explained at the launch. Right now, membership in IADAS is invitation-only. Charter members include past judges and the principal creatives of all Webby Award-winning sites. Ambitious young browser jockeys take note: for anyone wanting to be part of the future Web cabal, IADAS will be a critical rite of passage. If anything, the Webbies are now so credible, they verge on boring. Amazon for best e-commerce site? Tell us something we didn't know. It's a

little disconcerting how much of what looks at first glance like pure glamour turns out on closer inspection to be gruelling and fairly thankless work. "We are always on guard for conflicts of interest," Shlain told Zeldman. "In fact, we spend a good majority of our time discussing ethical issues in regards to judges, sponsors, et cetera. We also have

a policy of full disclosure with the public. We post on our Web site how sites are judged, who our judges are and our entire voting process. To further this goal, we are having our voting audited by an established auditing firm this year." In November, PricewaterhouseCoopers got the nod as auditors to the stars. This is what digital divas do for a living? Doesn't sound like that much fun.

Why put herself through it? What is Shlain trying to achieve? "Honouring excellence creatively and with a sense of irony," she says. "Raising the standards of the Internet by collecting input from the heroes of our culture — both wired and unplugged." In seeking to do this, Shlain has ended up back where she started — as an example to us all. So tell us: what pitfalls lie in store for young women trying to make their way in an industry as cut throat as this one? "None. Be bold, strong, and honest. You will do just fine." You heard. Now get to it. ♦

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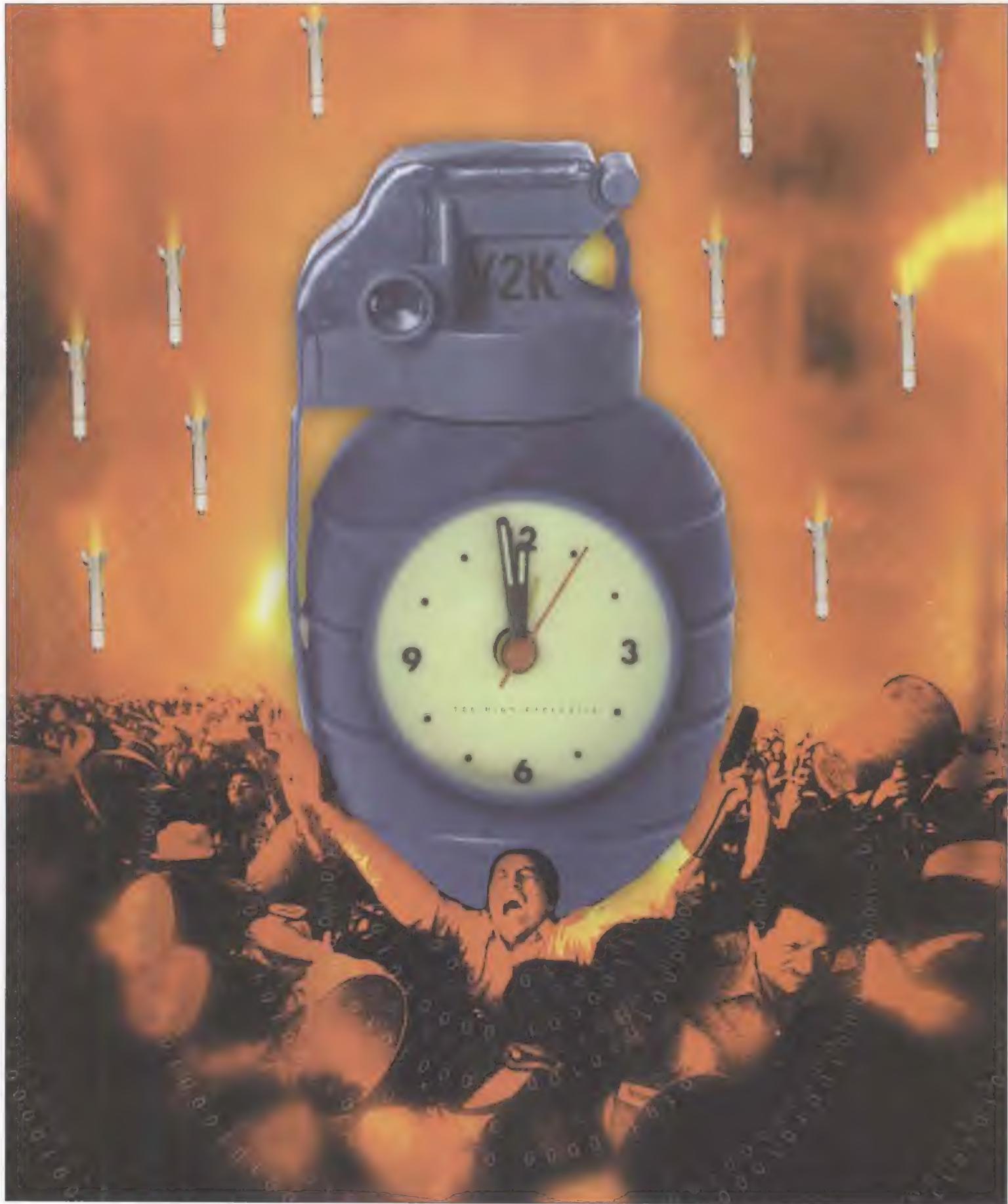


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Fear and loathing in Y2K

JUST WHAT THE HELL IS GOING TO HAPPEN ON JAN 1, 2000?

BY NIC HEALEY & KATE CRAWFORD | ILLUSTRATION BY TOBY KAZUMICHI GRIME

With just over 300 days to go, there appears to be a distressing lack of general awareness about the true nature of the Y2K (or Millennium) Bug. This is best evidenced by the amount of people who like to call it a 'virus'. Still, if there are people putting coffee cups in CD drives, we shouldn't be too surprised. The 'bug' is actually caused by some computer hardware and software having an inability to recognise four digit year dates — they don't compute in terms of 1999, but just as 99. So when the year 2000 rocks around, some hardware and software will think that it's actually 1900.

The blind date problem

The Y2K bug has its roots back when computers were first getting really popular — when people were suddenly realising the potential power of computing. At the time, processing memory was extremely expensive (and we're talking millions here) so programmers used the abbreviated date system to reduce the amount of bits in their code and save valuable processing power. They knew it might cause problems down the track, but they expected the computer revolution to be so fast that most of what they were programming or designing would be upgraded by the year 2000.

Problem is, people didn't stop using abbreviated date formats — even when they didn't need to save the processing time anymore. Also, some companies and agencies — hell, some

» Digital watches will stop working, planes will drop from the sky and society will crumble as the full impact of the inability to get a good latte dawns on a restless populous. Or will it? Time to panic, or just time to be prepared — find out the real story.

whole countries — are still using the older computers and software, mostly as part of so-called legacy systems, but sometimes in key processing roles (and if you don't believe us, ask the Russian cabinet member in charge of IT).

Embedded chips are everywhere

One of the most concerning issues is the non-compliant firmware, or embedded chips. These are, for want of a better term, microchips that are built into machinery and control its

function. They're everywhere — some estimates say that there will be 25 billion embedded systems at the end of 1999 — and no-one's entirely willing to guess how many are compliant.

When a non-compliant system (and I'll use that term to cover both software and hardware) encounters a date it doesn't like, a few things can happen. One is nothing — it might not care about the date in the long run and it could just keep going. Another possibility is that it will

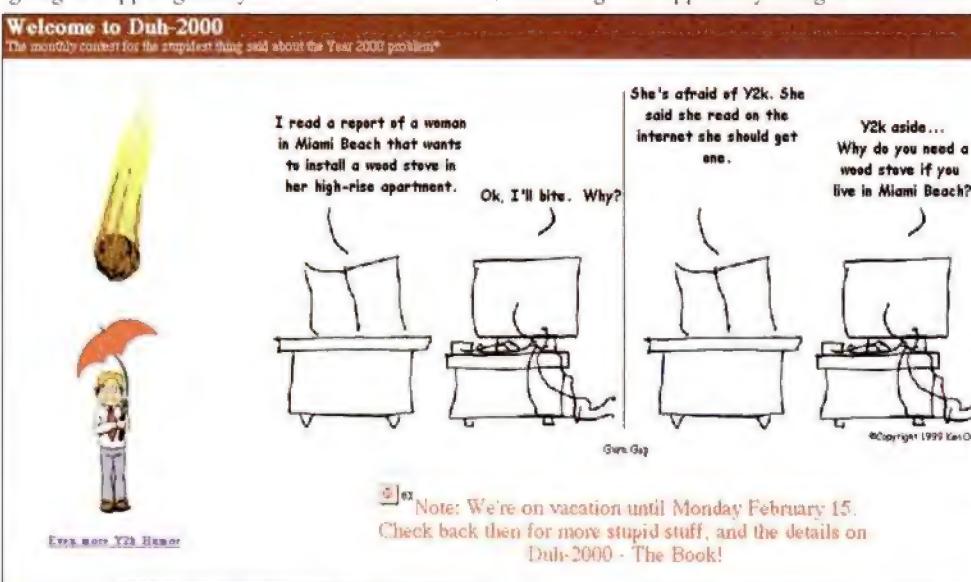
“We can't have people still thinking of it as an IT problem. It's gone beyond that and now it's about organisation. More than that — it's global.**”**

provide incorrect output. An example of this might be a computer registering a time lapse of 99 years — from 1999 to 1900 — and calculating any bills accordingly. Finally, the affected system may simply decide to stop working.

Perhaps the irony is that the majority of people who are aware of Y2K are more worried about their PC. They seem to think that they won't be able to play Solitaire come the new millennium and that's the worst of the issue. A smaller amount are preparing for the apocalypse, stocking up on dried food and .303 bullets for dad's old rifle. A smaller amount still have no idea. The rest are worried about what's going to happen globally.

Welcome to Duh-2000

The monthly contest for the stupidest thing said about the Year 2000 problem*



* Welcome to Duh-2000 <http://www.Duh-2000.com/>

Get ready

The time to fix the problem has, by most estimates, well and truly passed. Fixing the problem involves either re-writing lines of code or replacing the affected firmware. But before you can do that you need to test for Y2K non-compliance, then you fix it and after that you need to test that the fix worked. It's a laborious and expensive process that taps both financial and human resources to an incredible degree. We're lucky, though, because Australia is doing better than most countries at getting on top of the problem. But on the other hand, our inter-

dependency on other nations means that their problems are also our concerns.

An ABS survey released by the Government-funded year2K Industry Program in December last year revealed that 90% of Australian businesses were aware of the Y2K problem — although only 60% were undertaking work to address the problem. Luckily, these statistics are spread amongst businesses of all sizes and a further breakdown reveals that 98% of large businesses are aware of and working to combat the bug.

Utilities also rated pretty well, with 86% of them taking action against the bug and the remaining 14% apparently being "non-critical to

things are improving on this front. The Department of Communications, Information Technology and the Arts released a Commonwealth Y2K Progress Report in mid-December last year. The report seems almost deliberately vague, but the crux of it is to look at the statistics relating to Government services and their progress on being Y2K compliant. The results shows that most services have well under 50% of their "business critical" systems compliant. What is the definition of "business critical?" It isn't stipulated.

To be fair, the report does detail what percentage of our essential services are still being tested. The ones of real interest are Defence with 47% compliance and 17% still testing; Payments (covering all social security payments) with 29% compliance and 35% still testing; National Safety (emergency management and the like) with 46% compliance and 23% still testing; and Health, with 32% compliance and 16% still testing. The Commonwealth has set itself a target of July 1999 for all services to be 100% compliant. We're placing bets on that one.

System interdependence

While system failure in our own country might sound bad enough, there's much more to the issue than meets the eye.

"It's the most serious organisation problem to face humanity," Senator Ian Campbell, Parliamentary Secretary to the Minister for IT calmly mentioned over a glass of champagne at the 1998 Internet Industry Awards. "I think that's the line I'll use next Thursday. I tried, 'it's not the computer, stupid' tonight, but people aren't really getting it."

Campbell is a strong advocate of taking a global perspective on Y2K and treating it as a management problem, an issue of information and interconnectedness.

"We can't have people still thinking of it as an IT problem. It's gone beyond that and now it's about organisation. More than that — it's global."

Campbell gives an interesting example about aircraft and air control.

"The air industry is doing pretty well with its compliance, but the point is, even if they don't get it all done they can use the available computing power and some calculation by hand to

the continuous provision of Australia's essential services".

While these figures sound encouraging, there are some complicating factors. For example, 97% of the large businesses working on the bug are expecting to finish by December 1999, which might be politely described as cutting it a bit fine. 84% of utilities that relate to electricity, gas and water are also aiming for the same deadline. Only 7% of business have finished all work and testing — a sobering thought.

The Commonwealth is a little more reticent to describe its state of preparedness, although

>> 1/1/00: WHAT HAPPENED TO THE LIGHTS?

It's the first day of the year 2000. What is likely to happen? We see four possibilities:

- 1** Nothing. You wake up with a hangover, turn on the TV and make a cup using the electric espresso machine. You realise what day it is and thank your lucky stars that the world's governments pulled together and got that minor little Y2K problem licked before it got nasty.

Reality Factor: Low

- 2** Minor problems. There are some minor disruptions to services such as electricity and water, but local, State and Federal Governments have made good contingency plans that keep everything going as smoothly as possible for a few days. By that time the problematic systems are back online and the minor inconveniences of the past few days are soon forgotten as life returns to normal. You hear about some bigger problems occurring in "less developed" nations, but you don't get too worried as you presume we'll help them out with cash and services anyway.

Reality Factor: Possible

- 3** Considerable problems. Major problems occur that cause life to be uncomfortable for an extended period. Even when things are slowly put back online, the months of worldwide disorganisation create a serious economic hiccup and we fall into a rather nasty global recession. Things eventually come around in the ensuing years, but this is remembered for centuries to come as a worldwide re-screening of the Great Depression. The term Y2K Collapse enters the history books and your grandchildren marvel at how we managed to cope under such circumstances, although they wish you'd stop talking about how much easier the kids have it these days.

Reality Factor: Possible

- 4** Apocalypse. Total worldwide failure of basic utilities causes severe economic collapse. Reactors explode and vast areas of the world are irradiated by misguided soviet nuclear missiles. People panic and the streets of every city are filled with looters, murderers and people who have taken to cracking open the skulls of their neighbours and feasting on the gooey stuff inside. A third of the rivers are poisoned and the skies turn red as blood. Trumpets sound and the true believers are taken in the Rapture. Society as we know it is destroyed. Before you are killed by an insane mob who believe that you have the last two packets of dried noodles available in the city, you wish you had listened to the doomsayers and bought that solar-powered bomb shelter in the Northern Territory.

Reality Factor: Be real, people!



“The Government has been quite negligent about taking a leadership in demonstrating how to responsibly disclose Y2K information.**”**

▲ Chris Gilbey's 2000 Aware site; <http://www.2000aware.com/>

keep flights going even if it's not at full speed. The problem is worse for places like Indonesia where they're not doing much at all. And you try getting a flight out of Australia that doesn't cross Indonesian airspace."

The Y2K interconnectedness problem has, in this respect, some resemblance to Chaos Theory. A butterfly flapping its wings in America can cause stormy weather in China, while the Y2K bug is likely to be a cause of a mission critical component of air traffic control failing in Kuala Lumpur and causing outbound flights from Sydney to be delayed.

Time, gentlemen

So, what's the hassle? Everyone is getting onto the Y2K problem in no short order. But we've left it late. Very, very late. So late, in fact, that Y2K experts agree that all businesses and government bodies need a contingency plan in case of Y2K-related failure. More importantly, State and Federal Governments as a whole need to have contingency plans that relate to keeping us safe and happy in case of failures in any important services and utilities. And even more important than that, we need to know about these contingency plans. So why don't we?

Chris Gilbey, Webmaster of the rather exhaustive 2000Aware site (<http://www.2000aware.com>) and author of *How to Survive the Y2K Crisis in Australia* feels that the lack of forthcoming information is due to over-concern regarding panic.

"The real problem is that the Australian public is not being given credit for having a level of intelligence. There are people in Government who are concerned about revealing too much because they believe it will create panic. In doing so, however, they are planting the seeds for panic. If we're not being told about what's happening, people are going to assume the worst."

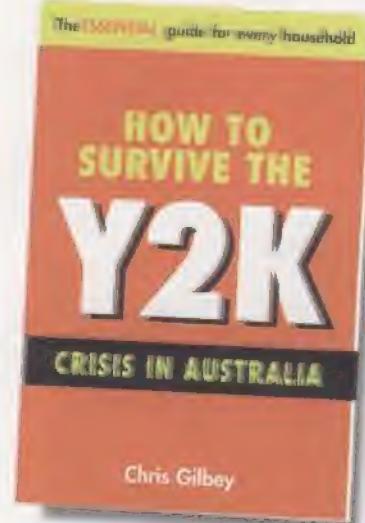
Interestingly enough, the NSW Government used to have its contingency plan online at its Y2K site (<http://www.y2k.gov.au>). Gilbey even put a link on his pages directly to it. Then one day, it was taken down.

"I was unofficially told that [the NSW Government] was very peeved that I had made the plan public," says Gilbey. "They felt that there were legal liabilities that could be incurred in the event that they made any recommendations to the public about what the public should do."

Kate Lundy, Labor Senator for the ACT and Assisting Shadow Minister for IT, agrees.

"The Government has been quite negligent about taking a leadership in demonstrating how to responsibly disclose Y2K information, and thereby not showing leadership to the wider community about how to become aware and prepare ourselves for Y2K. Further, the Government has a moral duty to embark upon an public education campaign about just what the implications are for Y2K and it just hasn't been forthcoming."

At the time of writing, a new Commonwealth Parliamentary Bill had been tabled that intends to "encourage Y2K disclosure" in Australian companies. How would it do this? Well, by protecting people who disclose Y2K information from civil legal liability arising from the statement. In layman's terms, provided you adhere to the guidelines for what a Y2K disclosure is,



▲ The book for Aussies in 2000 crisis.

you can be wrong (although obviously not knowingly so) and the Year 2000 Disclosure Bill of 1999 will protect you from any civil liability. Although the Bill only covers the Commonwealth, the States are expected to pass complementary legislation. It must be noted that the Bill does not force anyone to reveal

information, and, again at the time of writing, the Opposition party was preparing to table an amendment to the Bill that would make disclosure mandatory.

For the purposes of the Bill, it's important to note that a Y2K Disclosure includes contingency planning statements, and that the Commonwealth Government and its authorities are covered. And the Government has much to gain by this, as seen by the Australian Government Solicitor publication *Legal Briefing* dated April 27, 1998, that states, "There is clear potential for the Commonwealth (and Commonwealth agencies) to be liable in negligence for claims arising from loss or damage attributed to a year 2000 failure." It seems that the Government is aware of the potential legal minefield that opens up on January 1, 2000, and much butt-covering is presently taking place.

But at the very least, assuming the Bill is passed, we can expect a spate of Y2K-related disclosure statements from Government and corporate bodies alike. And we need that information as soon as possible.

Time to panic — question or statement?

The thing everyone needs to remember is that panic never helps. Should you find yourself in a state of panic, I can only recommend that you take a leaf out of the 1912 St John's Ambulance handbook and immediately threaten yourself with a cold douche before apply a mustard leaf to the back of the neck.

But there is also a difference between panicking and sauntering towards a potentially large problem with a broad grin and vacant eyes. We may all hope that the Government does its bit and looks after us, but that doesn't stop us from

A Time to Think
We welcome the year 2000 as an important reminder to re-examine the way the world works. It is a challenge for each of us to change the systems that do not work well, be they social, governmental, educational, technological, or other systems. "Year 2000" continues to show us the ways in which we are (or are not) connected to one another. These basic relational relationships are in need of careful consideration as the increasing complexity of living distracts us from their meaning.
Society is the thread that unites all other aspects of our civilization. Thus, it is the nexus point of "Year 2000". All aspects combine here and partake in the resource of meaning.

► 2000 Now <http://www.2000now.org/>

projects
United Information Year 2000
problem-solving action strategies
conferences sustainable community
development games
information
news, resources and analysis, automated reports
audio presentations, general information resources
links

putting some effort in to looking after ourselves.

"It is absolutely time people thought about personal contingency plans," says Gilbey. "And it's a case of the sooner the better, because they need to be undertaken with sanity, without panic, with calm and with a plan. I also feel that if corporations and governments are creating contingency plans, then it's perfectly rational for individuals to have their own plans — it's just a case of taking responsibility for yourself."

Senator Lundy agrees in a way, but stipulates the importance of staying calm in the face of minimal information.

"If the Government is failing to take responsibility for its citizens then obviously people have to take responsibility for them-

selves, but without proper information we can end up in a situation where people are confused and frightened about the implications, and that's when people might be prone to panic."

If you're wondering what sort of stuff might constitute a contingency plan, 2000aware has some rational advice on what you need, but in general it's just a matter of considering the basics. Think about what you use everyday — food, water, light — plus what you might need — first aid kits, waste disposal. It's all just a matter of acting sensibly and rationally.

Remember though, Y2K is about more than just not having electricity, so don't get overly cocky if you can still toast your muffins on January 1. Or as Chris Gilbey puts it: "Don't wait until the end of New Year's Day to decide everything is OK. Wait until the end of 2000."

Humour aside, one of the biggest problems we face is the panic issue. According to several financial consultants, if more than 10% of people withdraw their funds from banks, we face a crisis in our financial services. This is only going to compound the difficulty of resolving our technical issues with non-compliant systems. And there are going to be problems on January 1, 2000 — it's just too late in the game to avoid this — but the greatest worry is the potential for mass panic before that date. The only way to minimise panic is with information; to initiate an open and honest discussion between governments and the public about what we are really facing. This is as much about the psychology of the public as it is about technology. ♦

Y2K News IT
February 8, 1999
The World's Leading Printed News Magazine and Information Source for the Year 2000
The Sky is Not Falling (Editorial)
When It Comes To Y2K, Honesty Is The Best Policy (Editorial)
IT Confidential (Editorial)
Robert Shaw, the former Oracle and Boca Allen executive who replaced Ray Tomlinson as CEO of US Web/CEE, predicts that by consulting firms focused on enterprise resource planning "are headed down the wrong road."
Supply-Chain Tests Begin (Editorial)
eBusiness Report No Bluster, Other Industries Prepare Their Own Y2K Rethink

► Y2K News IT <http://www.y2knews-it.com/>

>> Y2K GOVERNMENT SITES

New South Wales Year 2000 Home Page

Information on the New South Wales Year 2000 Home Page. The NSW Y2K Year 2000 website is a NSW government initiative to assist the citizens, organisations and disposal of information on the year 2000 problem with the outcome to the year 2000. The site is maintained by the NSW State Office of Information Technology.

Information available on this is a mixture of the Year 2000 problem, new Y2K, Y2K legislation, news stories, Y2K resources, and the latest Y2K news. It is a clearing house for information on the Year 2000 issue, and is intended to keep government of Australia.

Disclaimer
Welcome to the NSW Year 2000 Home Page. This NSW Y2K Year 2000 website is a NSW government initiative to assist the citizens, organisations and disposal of information on the year 2000 problem with the outcome to the year 2000. The site is maintained by the NSW State Office of Information Technology.

■ NSW Year 2000 Home Page <http://www.y2k.gov.au/>

Office for Year 2000 Compliance

Welcome to the Office for Year 2000 Compliance. This is an information site created by the South Australian Government to provide accurate information about issues for the Millennium Project.

■ [Australia's Infrastructure](#) ■ [Year 2000 Information](#)
 ■ [Actions and Initiatives](#) ■ [The Business Sector](#)
 ■ [Checklist for Year 2000](#) ■ [Government & Governmental](#)
 ■ [Information & Media Sector](#)

■ [Fiscal & Economic Sector](#) ■ [Information Assets](#)
 ■ [Government Initiatives](#) ■ [Legal Aspects](#)
 ■ [PCs, Client & Hostware](#) ■ [Utilities Sector](#)

■ SA Office for Y2K Compliance <http://www.sa.gov.au/agencies/dits/year2000>

Y2K in WA
Year 2000 Risk Management
Government of Western Australia

Progress & Contacts **Talk to Us** **Links** **Disclaimer**

Advice
Community Business
Of Interest

Managing the Risk
Tools including guidelines and checklists to assist in managing the problem
[What has the Future?](#)
[Guidelines](#)
[Created Guidelines](#)

Millennium Compliance
Information package including compliance definition, letters to vendors, compliance checklists, clauses for new tenders, warranties and links to other references
[WA Compliance Package](#)
[Clauses for New Tenders](#)
[Other Compliance Links](#)

■ Y2K in WA <http://www.y2k.wa.gov.au/>

How Will the Year 2000 Bug Affect YOU?

Historically computer systems have coded two digits for the year instead of four, so 1997 would be coded as 97 with 01 or 19. As years are recorded backwards beyond year 1999, problems may start to occur due to functions being performed on the two digit year fields.

The Central Project Team, comprising the Northern Territory Year 2000 Project, is attacking the Year 2000 problem, step-by-step, throughout the Northern Territory. This site has been established to disseminate information about the Y2K problem.

Countdown to The Year 2000
159 days 15 hours 5 minutes 54 seconds

Workshop [\(Northern\) Northern Year 2000 Seminar](#)

Y2K Hotline
1800 112000 (Phone anywhere in the Northern Territory)
For further information please email [Year2000@nt.gov.au](#)

■ NT Year 2000 Home Page <http://www.nt.gov.au/year2000/>

year 2000

the Year 2000 Problem and who it may affect
what is affected?
line misconceptions about the Year 2000 Problem
what happens if you don't fix it?

- Where do you go to get help?
- Year 2000 service providers
- How do you fix it?
- Hardware Providers
- Software Providers
- Software Tools and Solutions



■ Tasmania's Y2K Home Page <http://www.ltr.tas.gov.au/PUBLICA.html>

[easyfind]

Jump to:
A B C D E F G H I J K L M N P Q R S T U V W Z

National Crisis
Telecommunications
Traffic
Tourism
Trade and Development
Transport
Treasurer

U
Universal Service Dispute
Unions (ASUA)

V
Victoria

the department | **ministers** | **newsroom** | **what's new** |
| **arts** | **communications** | **related sites** | **search** |

Results of category search for 'Y2K'

| Title | Last Updated |
|--|------------------|
| Year 2000 Information Disclosure Bill 1999 - Legislation | 1999-02-11 11:00 |
| Year 2000 Information Bulletin - January 1999 | 1999-02-09 09:22 |
| Document Interview - Y2K disclosure legislation - Transcript | 1999-02-10 13:13 |
| Y2K Disclosure Legislation - Media release | 1999-02-09 13:33 |
| Day 326 - Engineers and bankers stamp on bug - Media release | 1999-02-08 11:33 |

■ Department of Communications, Information Technology and the Arts <http://www.dcita.gov.au/>

Year 2000 Project Office

Office for Government Online

YEAR 2000

VICTORIAN GOVERNMENT INFORMATION TECHNOLOGY AUTHORITY

Y2K

All data in this site is confidential upon your acceptance of the following express terms of entry:
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No representation is made that the information contained in this website is accurate, complete or up-to-date.

■ VIC Gov. Millennium Bug <http://www.y2k.dsd.vic.gov.au/>

Solution for Y2K? Groundhog day!

With the Y2K thing getting scarier by the day, we're all becoming used to the notion that it may not only be uninvited guests or unpopular relatives who wreck our next New Year's Eve party — especially those of us who have hired a 747 for our proposed festivities. But as someone who never dives too far into the unknown without my floaties attached, it strikes me that there's a sensible solution to the upcoming doomsday scenario.

Quite simply, if we're not ready for the new millennium, let's postpone it. In other words: perhaps we should just do 1999 again.

Sure, this might sound radical and unwieldy, but just consider this: if your kids were failing

I know that not everyone will warm to the idea of staying down a year, but consider the benefits. There will be an international moratorium on aging,

to cut it at school, would you push them up to the next level and ruin their lives, or give them another chance to get sorted before moving up to the next challenge? (Pushy overachievers may want to skip that question.) Just transpose the same dilemma a step or two further and it's pretty obvious that our global family needs to get things right before we can make the grade together.

I know that not everyone will warm to the idea of staying down a year, but consider the benefits. There will be an international moratorium on aging.

That song by Mr Formerly Known As could get at least 12 more months of overexposure.

Sydney could get its Olympic facilities built on time, and the IOC could make some progress on the drugs in sport issue (only kidding).

Our Prime Minister — already well known

for his fondness for living in the past — could offer the nation a tax holiday. Millennium cult crazies would have their thunder stolen. Software companies, which now run most of our economy as well as our pesky PCs, will make a fortune selling up their 'Groundhog Day' kits. Suddenly the idea of not having a future doesn't seem so bad after all.

Of course, by removing the deadline for disaster, we may also unwittingly lull some nations into a false sense of the 'que sera sera'.

But if we find that there are countries still struggling with wanton bugs twelve months from now, they can linger in 1999 while other more confident or foolhardy nations push through the 2000 barrier. There are already dozens of time zones for the hours of the day, so why not for the years as well? We only have to look to the example of Europe's staggered adoption of its single currency to see that not everyone has to hold hands at the same time when it comes to global change. And as with Europe, we could make sure that any country proposing to move into the new millennium first demonstrates that they have qualified in all the right ways. It should end happily enough. By keeping different zones in different years, we'd end up putting time travel within the reach of millions, and open Y2K adventure parks in multiple countries so you can see in the new millennium over and over again. ♦

— Lawrie Zion

Lawrie Zion is a film reviewer for The Panel on the Ten Network



Y2K IN AMERICA:

INTERNET.AU'S US CORRESPONDENT TELLS ALL

BY RACHEL CHALMERS



It first broke the surface of popular culture as a casual, knowing reference in Kathryn Bigelow's hipster-Apocalypse film, *Strange Days*. This month it's on the cover of both uber-guy glossy *Details* and the ultra-wholesome *Utne Reader* — surely the first time these have shared a lead. It even forms the crux of Apple Computer's latest ad campaign. What's next for the Millennium Bug? *Time Magazine's Programming Error of the Year?* Its moment in the sun is not, however, entirely unforeseeable. Americans tend toward mass lunacy at the best of times. Charles Mackay's unjustly neglected Victorian classic, *Extraordinary Popular Delusions and the Madness of Crowds* might have been written with technology stock exchange NASDAQ in mind. The truth is that the exquisite cocktail of software, superstition and millennialism that we call the Y2K bug has only exaggerated certain tendencies already endemic to the native character.

The good people of America's religious right have behaved with their customary humor and restraint. "Stockpiling the canned food and shotguns" is no longer merely a metaphor for the mindset of paranoid groups, it's the literal

truth. The URLs tell their own story:

- <http://www.y2kchaos.com/>,
- <http://www.y2kprayershield.com/>,
- <http://www.y2kranch.com/>,
- <http://www.y2kwheat.com/>,
- <http://www.y2ksurvive.com/>.

Because there are no depths to which entrepreneurial Americans will not sink, a woman called Karen Anderson has written a book called: *Mars and Venus Look at the Year 2000 Problem*. (Next: *Monica Lewinsky and Leo DiCaprio hack COBOL*.) A lot of this stuff doesn't even qualify as good science fiction. This is from Y2K Chaos: "Finally starvation and will stalk those who survive these woes. And if you are still around you will see grown and healthy men and women sit down in shock not moving for weeks until they die with the blank distant stare of the undead still on their face." Oh, the humanity!

Convinced loners with well-stocked pantries and arsenals can avail themselves of Y2K-related personal ads. Here's one wacky funster flaunting his wares: "Male wants woman. I want a woman who is serious about preparing for Y2K. I can not spend 6 months to convince you that there is a problem. I want to prepare for the Y2K

problem now. We can discuss how to prepare along the way. We can do more together than alone." Who could resist a come-on like that? Here's someone he should meet: "Shy woman needs man's help. I am worried about Y2K. I don't know what will happen when the power goes out. I don't want to be alone when it does." Here, sweetie, have a candle. You read enough of this sort of thing, and suddenly the end of Western Civilization starts to seem like A Very Good Idea.

What's being almost universally indulged in circles like these is a toxic combination of wishful thinking and sloppy logic. The worst culprit by far is Gary North, who runs one of the largest of the Y2K resource sites (<http://www.garynorth.com>). He refers his readers to a list compiled by the British Institution of Electrical Engineers of embedded systems which might encounter problems when the millennium ticks over. "If these systems are at risk, everything is at risk!" Well, maybe. As well as the usual suspects — nuclear power plants, air traffic control, planes falling out of the sky, blah blah blah — the IEE list includes bottling plants and parking meters. Holy cow! Start hoarding your Vegemite jars now! On New Year's Eve, make sure you only pay the meter up till midnight! Much better to be safe than sorry!

The technical term for a thinker and speaker like North is a 'fruitcake', or a 'nutcase' as they like to say out here. To say that he has been wrong before is to put it far too mildly. Here is his stunningly callous assessment of the impact of AIDS, from a 1987 article called *The Plague has come at last: God has a sense of humor*. "The West is going to have a revolution," he writes. "It will mark the end of the present statist, humanist, fist-in-God's-face road... There is going to be a panic soon."

"When stories begin to get out about the AIDS plague in the local high schools and junior high schools, THERE IS GOING TO BE A WILD EXODUS FROM THE PUBLIC SCHOOLS... THE PUBLIC SCHOOLS ARE GOING TO BE ABANDONED. It will begin to

FOR A SPEECH FRIENDLY PRINTABLE VERSION OF THIS PAGE, CLICK HERE

Welcome to Y2KChaos.com

Welcome • Comprehensive Planning • Low Budget Survival Documents That Can Help You

The Year 2000

Understanding Y2K in 3 Steps • Financial Crisis and Communications Watch • What Will Happen Next? • Mr. Y2KAnswers All Your Questions

Communicating Y2K

Family Friends and Health • Reaching the Church • Y2K Programmers Perspective

Welcome

Top | F | Next

Purpose

People come to this Y2K survival page for as many different reasons as there are people or you may be desperately convinced that the future impact of the year 2000 is going to know how to survive.

Another Y2K page with "all you need to know about surviving 2000".

happen in waves, all over the country. The bureaucrats should know it's coming. They will be desperate. The humanist left's major institution of middle-class indoctrination is going to perish. I think it will happen before the mid 1990's." Bzzt, thanks for playing. Better luck next time. Not.

"Note," adds North. "If my critics want to create their own Web sites filled with 'It's not going to be all that bad' evidence, they may do so. I am unaware of any such site on the Web today." Hey Gary! You really oughta get out more. Why not start with Robert Shaeffer's site, at <http://www.debunker.com>. Here's what Shaeffer has to say about you: "What many people don't realize (and what North will not mention on his Y2K-hysteria Web site) is that North is a leading spokesman for an extremist fundamentalist movement known as Christian Reconstructionism, and the collapse of the pluralistic, secular-democratic states of Western society is their fondest wish!

"Their intention is to replace our present society with one 'reconstructed' according to the strictest of Biblical guidelines," Shaeffer continues. "They advocate bringing back stoning as punishment for Sabbath breakers, unchaste women, unrepentant homosexuals, and many others..." Seriously, would you want to survive if it meant you had to live out the rest of your days with party animals like these?

For every overreaction, there's an equal and opposite underreaction. San Franciscans who survived the Great Blackout of Sometime Last November share with the citizens of Sydney, Melbourne and Auckland the distinction of having had a major Western city's essential utilities — water, gas, power — crash out on them. As Ends of the World go, ours was distinctly underwhelming. Public transport, lights and lifts were out, yet in the defenseless heart of the shopping district, the citizens of a town plunged back to the Stone Ages had only one thing on their minds. Contrary to the gleeful gloom of North and his misanthropic chums, that thing was neither looting or rapine. No, it was coffee, and as soon as people realized that the Charles Schwab building had off-grid power, they lined up patiently for their latte. Americans may be crazy, but by God they're polite about it — charming and funny, even.

Of course the outages we will all experience in the year 2000 could be much, much worse. But you know what? The West Coast in general, and San Francisco in particular, has been bracing itself for something similar for at least the last ninety-three years. For all the fun sophisticated Californians have been making of those Bible-

Y2K Self Sufficient Nature Ranch For Sale

Are you wondering if you'll be able to survive the Y2K, Year 2000, Millennium bug nightmare that is facing the world? If so, then take a look at this self-sufficient nature ranch in beautiful Southern Oregon.



A new excuse to increase property flow? Is your home Y2K compliant? Here's your chance to return to nature...

Belt survivalists, most Bay Area households do keep — or mean to keep — a cache of tinned food, bottled water, flashlights and batteries somewhere safe and sound. Most of us know our neighbours and the local emergency numbers. These precautions are not, however, in case of computer malfunction, sudden Rapture or meteor strike. For a lot of people here, Y2K and the rest of the fantasy horsemen of the Apocalypse are a lot less frightening than the next major earthquake on the Hayward Fault.

The truth is no one knows how bad either might turn out to be. As far as preventing millennial meltdown goes, the prospect is unclear. The measures taken by North American companies to ensure that their code is Y2K compliant are probably about the best in the world, with Europe and Australia close behind. The report card for the United States public sector is decidedly mixed. The Federal Aviation Authority and the Department of Energy believe they'll be fine. The Department of Defense has been given a stern talking-to, which is certainly a little unsettling. The US Agriculture Secretary made a statement to the effect that food supplies are unlikely to be affected, since cornfields and cows are Y2K compliant. That people needed to have this pointed out to them was cause for more alarm. And there is widespread awareness that, in spite of everyone's best efforts, modern information networks are interdependent, and a problem in Japan could bring Detroit down.

That it could doesn't necessarily mean it will. People here remember the Apollo program. Hell, some of them even worked on it. Here's something they learned: If every successful

space mission depended on every piece of equipment working perfectly, only one in five million astronauts would have come home. To Americans, technology is generous. It has a lot of give. Many things can crack before the whole structure starts to sag. Hysterics, fanatics, doomsayers and opportunistic entrepreneurs aside, any partially filled glass water vessel is likely to be deemed half full. The cup of Y2K certainly isn't empty yet.

What is widely recognized as the most serious threat is the risk of doomsayer-induced panic - extraordinary popular delusions, in fact, and the madness of crowds. In a move best described as gobsmackingly stupid and irresponsible, the second largest telephone company in Los Angeles warned its 1.5 million customers to withdraw 'a few weeks worth of extra cash' in case the Y2K bug bites. Useful hint: don't. Even the computer research titan the Gartner Group has weighed in to urge discretion. "Withdrawing funds from banks or liquidating investments is not warranted...Individuals should prepare for limited duration, localised failures of services and infrastructure rather than an apocalypse." Of course, as long-time IT industry boosters, Gartner has an agenda of its own. The company's survival depends on the long-term survival of Western Civilization and on the continued high status and high price of high tech. But hey, guess what? As Westernised geeks, our survival depends on exactly the same things. It's not often in our lifetimes that the public interest will coincide so precisely with that of big business, so kick back, relax and enjoy. ♦



Objects of desire

THE HI-TECH GADGETS YOU KNOW YOU WANT

BY ROBERT ARTHUR | ILLUSTRATION BY STEVEN SCOTT

When I was a kid, the bike of choice was the Malvern Star dragster. Tastes changed, and the dragster gave way to BMX racers in the 80s, which were then replaced by today's mountain bikes. Despite these fads, the bike remained a bike -- two wheels, pedals, chain and handlebars.

For years, personal computers operated on the same principle. While software continued to change and improve, the PC still essentially consisted of a monitor, keyboard, mouse and hard-drive. Predictable, practical and as glamorous as a front-loader washing machine.

Until now, that is. Call it fate. Call it historic inevitability. Or just blame security for letting designers into the usability testing labs. Whatever the reason, computers are starting to look like something you actually want to display in your living room, instead of banishing them to the basement.

And not just computers, either. As the following pages will show, high fashion has caught up with hi-tech to create devices of desire designed to tempt you.

Shiny new Apples

Let's start with your workstation computer. It used to be a lot like the Model T Ford -- you could have it in any colour you wanted, so long as it was grey. Not anymore. Computer makers have discovered the colour spectrum, and are now turning out machines on a par with packets of Lifesavers.

» Here come the supermodels: these high-tech gadgets are thinner, faster, and much more seductive than the beige-backed boxes we're accustomed to. This is the wish list of those in the know — even though some of these products have to be ordered from overseas, they are catching on fast with the plugged-in crowd in Australia. Begin drooling now.

Apple Computer, after years of losing money and customers, has turned its fortunes around with its new iMac range, which boasts a nifty design, and comes in blueberry, strawberry, tangerine, grape and lime -- colours, that is, not flavours.

The goldfish bowl casing conceals a high-speed 56Kbps modem, built-in speakers with SRS sound, and what Apple modestly calls its "PC toasting" 266MHz PowerPC G3 processor,

32Mb SDRAM and 6Gb hard disk drive.

But wait, there's more. Apart from the Mac OS 8.5, the iMac also boasts such programs as AppleWorks 5, Kai's Photo Soap, Interplay's MDK, Pangea's Software Nanosaur — there's even a Guide to Good Cooking, for all those MUDDers tired of five-minute noodles.

The iMac is also meant to be idiot-proof. Taking their cue from the world of kitchen appliances, Apple says all you have to do is plug in the

“ You might be a sales rep on the road. Or your boss treats you like a lab rat, and thinks it would be fun to try out this hot-desking idea he read about somewhere... ”

power cord, then the modem cord, and attach the keyboard and mouse. That's it. And all for \$2545, and available directly from the Apple Store at <http://www.apple.com.au/store>.



For those Macolytes out there who have moved beyond their 'L' plates, perhaps Apple's Power Macintosh G3 is more to your liking.

Built for design professionals and demanding gamers alike, the new version G3 features the brand-spanking new AT RAGE 128 2D-3D graphics accelerator chip, said to be the fastest on the market.

Supporting graphics and video programs such as QuickDraw 3D Rave, and OpenGL, the G3 is said to run #D games like Myth II at 75 frames per second — 47% faster than standard PCs with advanced add-in cards.

The G3's mini tower has an easy-open enclosure, providing easy access to expansion slots, memory, cards and drives.

The built-in 400 MBPS Firewire also lets you transfer high-quality video directly from your digital video camera for editing. Priced at \$3,495, they're also available from the Apple Store.

Complementing the G3s are the new Apple Studio Display monitors, which come in 21", 17" and a 15" flat panel displays.

The first two respectively offer Trinitron and DiamondTron cathode ray tube (CRT) performance to ensure crisp images, while the 15" monitor has a thin film Liquid Crystal Display (LCD).

Pitched towards publishing professionals, the new Studio Displays emphasise clarity of image, with high contrast ratios and colour calibration.

These souped-up screens start from \$1100, and can be purchased — yes, you guessed it — from the Apple Store online.



- POWER MAC G3

Select a model



- APPLE iMACS



- SUPER TFT MONITOR

Coming soon to a screen near you

Computer monitors are fine for work, but you wouldn't want to use them for anything else, like watching a video, or as a conversation piece. But now the humble monitor has had a makeover, too.

Hitachi's flat panel PCX-DT3140 monitor is a case in point. This 14.1" LCD display lets you view images on a screen equivalent to a 16" CRT monitor, but takes up half the space normally required by its larger 17" rivals.

Using Hitachi's Super TFT technology, the PCX monitor improves the quality of the image colour and contrast when viewed from multiple angles, through better controlling the orientation of the liquid crystal molecules. The result is images that stay bright and clear, no matter what angle you're looking at them from.

Screen settings can be adjusted via the on-screen display, with an Auto Adjust function that automatically optimises the horizontal and vertical holds, as well as the contrast and colour balance.

The PCX-DT3140 retails for \$1999.

For details of your nearest supplier, go to <http://www.hitachi.com.au>

PRODUCTS

multimedia

| | |
|----------------------|----------------|
| PCX-DT3140 (DISPLAY) | Specs/Location |
| Number of Pixels | Horizontal |
| Number of Colors | Vertical |
| Making | Contrast |
| Brightness | Color |

Equally nifty is Philips' 151AX flat panel monitor. This 15.1" LCD monitor has 90% of the viewing area of comparable 17" CRT monitors, but is only 7" deep.

The 151AX also incorporates USB technology, which allows peripherals to be added to a PC using a simple connection, while plug 'n' play devices, can be added or removed without having to shut down your machine.

The 151AX is available for \$1799, and is distributed through computer and electronics outlets. For more information, visit <http://www.philips.com.au>.



Data on the run

Of course you may not have the luxury of having your own workstation, with a bonus chair thrown in.

You might be a sales rep on the road. Or your boss treats you like a lab rat, and thinks it would be fun to try out this hot-desking idea he read about somewhere. Or you might be an old fashioned workaholic who can't go without logging on for any extended period of time — such as your honeymoon.

Whatever the reason, there is a new generation of mobile computing devices that will keep you wired, no matter where you are.

Vadem's Clio seeks to bridge the gap between laptop PCs and palm-sized computers by combining essential business computing functions with flexible working modes.

Clio's most distinctive feature is its SwingTop screen. In addition to working as a notebook display, the SwingTop screen can be used in conjunction with the built-in stylus as a writing tablet, which processes natural handwriting using the Calligrapher input.

Need to do off-site presentations, but don't want to be weighed down with LCD screens? No problem — Clio's screen can be adjusted in order to let you display your sales pitch to clients.

Using Microsoft's CE H/PC Pro Edition, the Clio features the standard range of MS software applications, including Excel, PowerPoint, Access and Word.

The built-in faxing, network, PC remote access and Internet connection features also provide instant communication. The ActiveSync program lets you automatically synchronise your files when connected to your desktop PC or office network.

Vadem's Clio retails for \$US999. For ordering information, visit http://www.vadem.com/main_clio.html

Cross Pen Computing Group's CrossPad device may be the ideal portable computer for hunt 'n' peck typists — they've replaced the keyboard with a good old-fashioned paper notepad.



- 151AX MONITOR



- VADEM CLIO



- CROSS PAD



- RUPUTER WATCHES

It's just like regular doodling. You simply jot down your handwritten notes on the paper pad using the CrossWriter Digital Pen. This houses a radio frequency transmitter, which transmits a signal through the paper, and captures your handwriting on the digital notepad beneath.

CrossPad can capture more than 50 letter-sized pages of notes, sketches and diagrams. To create a new electronic page, you can either press a button, or simply tear off the paper page. You then plug the CrossPad into your PC using the supplied special cable, which fits into any standard COM port. Press a button, and your electronically stored notes will appear on your computer screen.

The CrossPad comes complete with pen, pen holder and spare ink cartridges, and sells for \$US399. For ordering details, visit <http://www.cross-pcg.com/crosspad/index.html>. Now if it



could make doctors' handwriting legible, I'm sure they'd have a bona fide hit on their hands...

Dick Tracy is your future

Look, don't get me wrong — all these portable computers are huge technological advances. But let's face it, they don't have the same zing as all those spiffy gizmos we saw on *The Jetsons*, *The Thunderbirds* or *Space 1999*.

Thankfully our Japanese friends are on the case. Not content with the world of technology as we know it, they turn to the world of anime and manga for inspiration. While they've yet to come up with a working model of Gigantor, the following devices show they're certainly heading in the right direction.

Seiko's Ruputer is straight out of the pages of Dick Tracy and his wrist radio/TV. This is essentially a wristwatch-sized version of today's Personal Digital Assistants (PDA), and has many of the same features.

There's an address book, a job list for all your "to do" items, a general book for personal information such as credit card PIN numbers, a daily-monthly schedule calendar, a calculator, as well as a variety of data entry keyboard screens. Oh, and it can tell the time too. A separate PC docking station is also available for data transfer from Win95 files to the Ruputer

Objects of desire » “Thankfully our Japanese friends are on the case. Not content with the world of technology as we know it, they turn to the world of anime and manga for inspiration.”

Filter, using a drag 'n' drop function.

The Ruputer is currently available only in Japan, with the standard model selling for ¥38,000, and the Ruputer Pro going for ¥48,000. For more details, visit

<http://www.ruputer.com/english/product/profile.html>

Exchanging business cards is apparently a serious ritual in most Japanese business meetings, but now its been given a hi-tech twist, thanks also to Seiko and its Smart Business Card Reader.

This portable scanning device lets you drop in a business card, which is read by the Optical Character Recognition function, locating the name, address and other fields on the card. The built-in contact manager software stores the information, which can in turn be downloaded onto most desktop PC contact manager programs, such as ACT! and ECCO.

For people wanting to junk their Rolodex, this time saver can be ordered online from Seiko for \$US199. For further details, visit

http://www.seikosmart.com/products/_sbcr.htm



Padding the net

Perhaps the ultimate in portable computing is Cyrix Corporation's newly unveiled WebPAD prototype.

WebPAID is a hand-held wireless Internet access device, which works like a cordless telephone, with a range of 500 feet from the base station transceiver.

Where located near telephone and network connections, the transceiver allows users to carry the WebPAD around with them, surf the Web, read and send email, or participate in chat groups.

The prototype is a battery operated device



- RUPUTER WATCH ACCESSORIES



- CYRIX WEBPAD

measuring 8" x 11", with a 10" LCD touchscreen

Cyrix plans to have reference designs for the WebPAD available to original equipment manufacturers sometime during the first quarter of 1999, with pricing to be set by the manufacturers. For more details, visit

<http://www.cyrax.com/html/about/1998/webpage.htm>

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Cyrix Unveils Groundbreaking WebPAD™ Conceptual Design

Demonstrates plug-and-go adoption for low-cost, portable web browsing devices that could enable mass adoption of internet access

Rutherford, NJ – November 18, 1999 – Cyrix Corporation, a division of National Semiconductor Corporation (NSC), today announced a groundbreaking new concept in portable computing. The WebPAD™ is a handheld device designed to be the next generation of the integrated mobile PC. An Internet browser, the WebPAD provides a compact way to do the Web from anywhere. All COMBO! (Combi-Modem) and all the power of the notebook computer is contained in a sleek, portable device.

The WebPAD is the first mobile Internet browser designed for low-cost, portable computing. It's a handheld device that's designed to be as efficient as the desktop computer it replaces, except the WebPAD is mobile.

"The WebPAD is the first step in the evolution of computing," said Jim Balmer, president of Cyrix. "It's a breakthrough in the way we look at computing. We've created a handheld device that does what you expect a notebook to do, but it's smaller, lighter, and more portable. It's a device that can be used anywhere, anytime, without having to worry about power or portability."

Auteur! Auteur!

Let's be honest. Your boss may think your computer is something you use to do your job, but we all know that it's to be used for more important tasks. Like writing your first novel. Downloading *South Park* screen-savers. Or producing your debut feature film.

Yes, your destiny as the next Kevin Smith is assured with a new generation of digital video products that let you turn your humble PC into your very own movie studio.

Hitachi's M2 MPFGCAM lets you record digital video files, still images and digital audio, with just a point 'n' shoot doo-dar!

The M2 lets you record 27 minutes of full motion, MPEG standard video, with 352 x 240 resolution at 30 frames per second. The file management function lets you sort your video clips into folders, as well as deleting unwanted footage. Nine thumbnail clips can be viewed in the 1.8" colour LCD, and can be selected for immediate playback.

If photography's your thing, you can shoot and store 3,000 JPEG images. You can also record four hours of digital audio while taking photos, which lets you annotate your photos, or record sounds heard during the shoot.

The M2's built-in 260Mb PCMCIA card can be removed and inserted into both Mac and PC

laptops, which can then be copied onto your hard-drive. It can also be connected to NTSC format TVs and VCRs.

The M2 MPEGCAM weighs in at \$US1499. For product information, visit <http://www.mpegcam.com>.

HITACHI

HOME PRODUCT INFO PURCHASE APPLICATIONS SUPPORT CONTACT NEWS

HITACHI M2

the
3 in 1 Multimedia Recorder

27 minutes of MPEG-1 video
3,000 JPEG still images
4 hours of digital audio

Buy The M2 Multimedia Recorder

For orders outside the US, call +1-800-816-2364

Of course, your cinematic epic deserves to be heard as well as seen. And what better way to hear it than through Benwin's wafer thin BW2000 flat panel speakers.

Measuring just 7mm deep, these multimedia speakers use an 'exciter' in place of conventional speaker cones, which are attached to the panels, causing them to vibrate and produce sound. The speakers simply plug into any personal computer equipped with a sound card, as well as portable stereos, CD players or stereo televisions.

The BW2000 is available for \$US129. Product information can be found at <http://www.benwin.com>

Australian customers should contact Benwin directly on +1-626-935-8888 for ordering information.

If you prefer watching someone else's movies, then you can make like a couch potato no matter where you are, thanks to Panasonic's PalmTheater, billed as the world's first digital video disc (DVD) player.

This compact unit has a 5.8" Widescreen LCD monitor with 280,000 pixels, and offers a 16:9 aspect ratio allowing widescreen images to be viewed at high resolution. The enclosed stereo speakers deliver accompanying virtual surround sound.

The PalmTheater comes in at \$US1399. For details, visit http://www.panasonic.com/consumer_electronics/dvd/dvd110.htm

Plugged-in shutterbugs can look forward to Fujifilm's forthcoming Digital In-Printer Camera. Weighing 610g without batteries, it lets you take digital quality photos, display them, and print them out instantly.

The camera uses the internationally accepted SmartMedia memory card, which allows the stored images to be transferred to and from your



PC, where they can be stored or altered accordingly. Photo print-outs are the same size as your credit card, and have an image size of 46mm x 62mm.

The price is yet to be confirmed, but Hanimex Australia plans to distribute them locally by mid-1999. For updates, contact Hanimex Australia on 02 9466 2600.

Computerwear — casual or black tie?

With computers getting smaller and smaller, it seemed inevitable that they'd become tiny enough to wear. And sure enough, they have.

Personal Digital Assistants (PDAs), for example, can fit in your hand, but where can you put them when you want both hands free?

Instead of trying to stuff them into your back pocket, you can strap them on your wrist instead, using Orang-Otang Computers' Durango 151 PDA accessory.

This canvas wrist strap features a 360° swiveling base that allows you to display on-screen information to others. Originally designed for people with limited mobility, the Durango 151 can be used by anyone whenever such convenience is required.

It costs \$US19.95, and can be ordered online from Orang-Otang at <http://www.orang-otang.com/Durango.htm>

Orang-Otang Computers, Inc.

1-800-ORANG-OTANG

The Durango 151™

\$19.95*

The Durango 151 is Orang-Otang's newest generation of Wireless PDA accessories. The Durango 151 is a unique combination of screen display and a built-in graphics receiver. As Durango 151 has a 160-degree swiveling base, it's easy to viewing and making of documents on the PDA or orang-o-tang products. The Durango 151 does not require a separate base - it is designed to function as a "wristband".

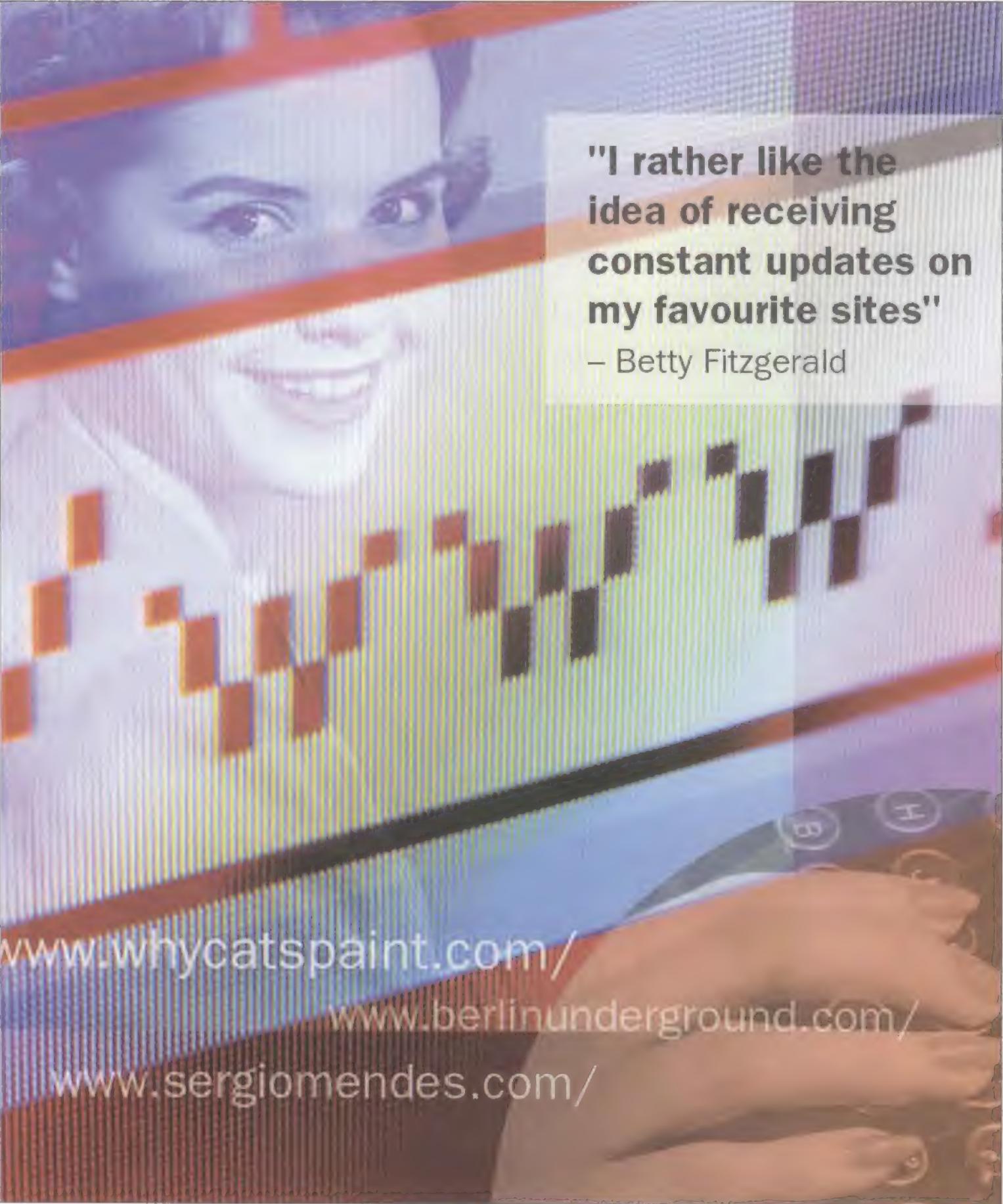
Available in 3 sizes:

- Large - fits most sizes of 8 inches to 11 inches*
- Medium - fits most sizes of 7 inches to 9 inches*
- Small - fits most sizes of 6 inches to 8.5 inches*

Ever considered telecommuting from the bottom of the ocean? You may be able to do just that, thanks to the Australian Institute of Marine Science (AIMS), which has developed a prototype for the WetPC, an underwater wearable computer which can be used by divers for a range of data collection purposes.

Comprising a miniature computer mounted on the diver's air tank, a mask-mounted virtual display and a chest-mounted Kordpad keypad device, the WetPC is designed for easy data entry and display, requiring minimal visual concentration or user feedback.

AIMS is undertaking commercial development of the patented WetPC device. For more details, visit <http://www.aims.gov.au/pages/wetpc/> ♦



**"I rather like the
idea of receiving
constant updates on
my favourite sites"**

– Betty Fitzgerald

www.whycatspaint.com/

www.berlinunderground.com/

www.sergiomendes.com/

Customise your online life!

SO LET'S GET PERSONAL

BY TODD NICECAPE | ILLUSTRATION BY JULIAN WRIGLEY

The Internet wants you — and there are plenty of sites more than prepared to pander to your every need. This personalisation revolution is still in its infancy however, and you're going to find that most sites that offer decent personalisation content are US-based. And the Americans, God bless 'em, tend not to believe that there's actually life outside the US of A, so you're going to be disappointed if you're after some good local content. Happily enough, there are signs that this is changing, mostly with US-based sites beginning to carry more options for people outside the US, but given the popularity of the services offered it surely can't be that long before one of the major Australian players weighs in with their own personalised portal service.

My.Yahoo

<http://my.yahoo.com>

The first thing that will hit you when you visit here is the simple, clean and very effective layout of the site. Others tend to go for a more flashy and splashy look, but usually end up a total dog's breakfast. Yahoo presents all its information in a straightforward and simple manner that is both clear and pleasing to the eye (in a minimalistic kind of way). The information is presented in two columns, a thin one on the left for quick general information, and the main column, which runs down the middle of the page with the headlines from your selected news and entertainment articles.

» There's so much information out there on the Web, that the big problem is hunting down what's relevant to you. Enter 'personalised portal' pages: Web pages that carry only the content you want. Sure, they may not be perfect for everyone but trust us — the idea works.

News-wise, you can select from: Business & Industry (around 30 specifications), Community, Current Events and Politics (containing a large selection of newspapers and journals from around the world — although not Australia), Entertainment (stage, movies, music, and celebrity news, including a decent array of Euro-centric material), Health, Sports (a fairly wide range, though mostly US sports), Technology & Science (a great selection, including UK *New Scientist*

magazine), and United States (a selection for US state news). This is a lot to trawl through, but if you can't find anything of interest in the bundle that Yahoo offers, then you probably should get out a little more. In a perfect world there would be the option to include headlines from Australian papers — especially seeing as places such as the Philippines and Norway have localised content, but it's not a perfect world. Still, local gripes aside, Yahoo's personalised news is second to none.

Customise your online life!

Customise your online life! » **“** Now, I think of myself as a fairly mainstream person, so I don't think I would be alone in finding it a bit strange that Cross Country Skiing in New England would be considered a top 5% sports site. **”**

Lycos Personal Guide

<http://personal.lycos.com>

Lycos is following in the footsteps of Yahoo quite closely — very closely, in fact. The feature set for the site is quite impressive, and it definitely outdoes Yahoo in the customisability of layout and display stakes. The ability to choose from 13 different colour schemes is nice if not groundbreaking (or even useful), and the method by which you select your content and layout is very impressive. Lycos has gone for a Java-based selection (though there is a non-Java version available for Mac users) where you just click and drag items to wherever you want them. Most other sites just refresh the page to update your selections during this process but with Lycos it's instant, and makes for a much faster and more user-friendly option. Even so, for some reason it was decided to use two separate pages rather than display all the information on one, which seems strange. Why use two pages when the user could simply scroll down to reach the parts that couldn't be seen on the top screen?

Despite the flash display methods and eye-pleasing backdrops, the My Personal Lycos Guide just can't cut it in the information stakes. The news section does have a fair selection, but it's nowhere near as detailed as Yahoo. Selections include world news, politics (of course, this means US politics), technology, sports (US sports, natch), business, and entertainment. There's no way to specify how many headlines you wish to see for each of your chosen sections, instead you get a link to that section and the top headline — and that's it.

As with other personal portals, you're able to customise the weather to your location, as well as enabling you to keep an eye on the weather overseas, if that's what takes your fancy. Then there's the "favourite links" section, which is just links to a bunch of affiliate sites such as HotBot and Tripod — not much value there. The horoscope is, well, a horoscope, though you can also enter a different birth-date to read others. Most intriguing of all is the listing of "top 5% sites. Choose from a range of topics and Lycos will display a list of what it considers to be top 5% sites on that topic.

Now, I think of myself as a fairly mainstream person, so I don't think I would be alone in finding it a bit strange that Cross Country Skiing in New England would be considered a top 5% sports site. Or Syracuse Online being considered a top 5% news site or even Doggy Information on the Web. And the Online Book of Parrots is not my idea of a lifestyle top 5 percent-er. Still, at least you're always guaranteed a trip down the weird and wonderful alleyways of the Web this way, I guess.

One interesting feature that Lycos offers, though, is the address book and calendar. Having an online listing of important dates, as well as a contact list should you lose or misplace your PDA or diary is a great idea, but the service is run through planetall.com, which is amazon.com's address book and calendar service — requiring you to sign up with them before you can use it. Other features include a worldwide city guide which does include Australian locales, and a listing of stocks on the US exchange.

Overall, the Lycos Personal Guide really seems to be in its infancy. It has many cool

PERSONALISE YOUR CHOICE OF BROWSER

A screenshot of the My Yahoo! homepage. At the top, there's a search bar with the placeholder "Instant Domain Name: Just add dot com!" and a "Search" button. Below the search bar is a "NETWORK SOLUTIONS" banner with several icons. The main content area has a dark header "My Friend Page". Underneath it, there's a "Customize your My Yahoo! Headline" section with a "Headline" input field and a "Submit" button. To the right of this is a "Find Friends" search bar. Below these are two sections: "Message Center" and "TV Listings". The "Message Center" section shows a list of messages from friends like "John Doe", "Jane Smith", and "Mike Johnson". It includes checkboxes for "Remember My Password" and "Remember ID & Password". The "TV Listings" section shows a table for "TV Listings" with columns for "Title", "Airs", "Genre", "Rating", and "Description". There are also "Edit" and "Delete" buttons for each row.

▲ My.Yahoo <http://my.yahoo.com>

 [Lycos Personal Guide](http://personal.lycos.com) <http://personal.lycos.com>

features, but there were some strange decisions made about the layout. Lycos is a relatively new kid on the block though, and it is apparently working to extend the informational options soon.

My news.com

<http://www.news.com>

(click on the 'My news.com' link)

C|net has established a name for itself as one of the best sources of news and information online, and has grown into a vast sprawl of Web pages focused on news — computer-oriented and straight alike. It comes as no surprise to learn that its personalised portal really only offers to personalise the news that you want onto one Web page.

Personalisation options include just about every technology-oriented specification you could ask for — hardware, software, notebooks, the Web, copyright, and plenty more. There is a Boolean search available on current stories, as well as the ability to search backwards for up to a week for older pieces. The style of layout is exactly the same as with other C|net sites, with section headings, headlines, and a brief rundown of the story in question — perfect! To top it all off, you can also pop up a second window just with the headlines from your areas of interest, to make navigation back and forth between stories that much easier.

My Netscape.com

<http://my.netscape.com>

Netscape has been trying hard to capitalise on the millions of browsers worldwide who haven't bothered (or don't know how) to change their default home page. Microsoft has its channel-based portal along with its active desktop design, and so Netscape designed its own version of channels — called channels. Now, apparently, it's seen what Yahoo is doing and decided that it wants a piece of the action, hence my.netscape.com. Upon first glance, Netscape's site seems to be very, very similar in layout to Yahoo. This is not necessarily a bad thing at all, but Netscape has gone a bit far with its version of the design. Gone are the simple, clean lines and in comes a smaller typeface and a three column display, crowding in as much information as possible on the main screen, making the whole thing a little confusing.

The main news content is quite detailed — it's taken from the Reuters feed — with a big variety of sections. You can choose how many headlines to see from each category (up to nine), and Netscape stores all the text locally, so you're not chopping and changing between sites all the time. However, there are no links to further or related information, so all you can expect is a couple of hundred words on each story and that's it. In most cases this was all I really wanted from the stories, but at certain occasions I was forced to use the handily placed search box to

find other sites with more information manually.

The other sections on offer include all the usual material. There's a sports section which is really just a link to CBS's Sportsline, though this is a very good site and has a surprisingly global flavour. With My.Netscape's weather section though, you're looking at some pretty impressive detail. As usual, you can line up your locality for a brief summary, but clicking upon the link takes you to a four-part daily rundown on the weather, including satellite photos, and details on humidity, precipitation, wind speed, and visibility. It's a bit over the top, really, but wow!

Netscape's fledgling Web-email service gets a push as well and there is a free calendar (which is proprietary, unlike Lycos's attempt) that could come in very handy, as should the included address book. However, not all innovations turn out to be quite as useful as at first thought — considering that every OS has an inbuilt calculator, why would you want one on your Web page? Bizarrely, the bookmarks section can't be personalised by interest area. Instead they are comprised of rather generic links to places such as Amazon.com, ET Online, and so on. You can, of course, edit the links (or import them, if you're using Netscape) so that they reflect what you have in your browser's bookmarks file — but this seems a trifle redundant. Oh, and there's also the ubiquitous horoscopes — stay away! They're frighteningly addictive! ♦

My News.com

Last Updated: Feb 9, 10:40 p.m. PT
for dr_nic

Global Agency to tackle Y2K
The White House approved the creation of an international body by members of the United Nations and World Bank and has named a U.S. government official to help lead the new body.
February 9, 12:07 p.m.

FTC to expand Intel antitrust case
Half month the government will extend its complaint, introducing evidence from Micron and ATI and AT&T in the chip and motherboard markets.
February 9, 8:55 p.m.

Celestica reports record revenues
Shares in the former electronic manufacturing arm of IBM Canada Inc. after it reports recordable contract revenue and a strong fourth quarter.
February 9, 8:40 p.m.

ACI-Netscape deal draws a billion from Sun
ACI will net \$1.28 billion from Sun over the next three years by result of a side deal licensing Sun's to a Netscape software on behalf of the Internet giant.
February 9, 8:40 p.m.

Feds want the tale of the tape, again
Opposing the legislature of a Microsoft videotape demonstration may challenge again at the antitrust trial the issue regarding modem speeds.
February 9, 5:00 p.m.

Sun: Unix beats Windows in "uptime"
Sun Microsystems' partner to make its Unix OS more reliable than Windows NT.
February 9, 3:00 p.m.

Intel loses fight over FTC lawyer
The judge hearing the FTC's antitrust action against Intel denied its request to bar one of the agency's litigators.
February 9, 2:10 p.m.

NEWS ALERTS
Click these headlines for summaries of upcoming stories.

My Netscape

Welcome!

Search the Web with Netscape

Headlines

Headlines from the Web

TOP STORIES (February 9, 11:10 AM)

- Global Agency to tackle Y2K
- Celestica reports record revenues
- ACI-Netscape deal draws a billion from Sun
- Feds want the tale of the tape, again
- Intel loses fight over FTC lawyer
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Business Headlines from the Web

TOP STORIES (February 9, 11:10 AM)

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- ACI-Netscape deal draws a billion from Sun
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- Intel loses fight over FTC lawyer
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- Global Agency to tackle Y2K
- Celestica reports record revenues
- ACI-Netscape deal draws a billion from Sun

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webkit

Macromedia Director gets the Intel touch

Macromedia has announced the release of the latest version of its flagship multimedia development software, Director 7 Shockwave Internet Studio. The release has included a new partnership with Intel to include its software in the package. The addition of the Intel Web Design Effects into Director will give developers more tools with which to develop streaming multimedia content for the Web. The software from the Intel Architecture Lab (IAL) has been included in the Director 7 Shockwave Internet Studio, allowing developers to apply animated effects such as distortion to allow rippling, moving liquids or fabrics, or natural effects such as rain, clouds, smoke and fire. The Shockwave Internet Studio allows developers to take multimedia presentations developed

The screenshot shows the homepage of the Director 7 Shockwave Internet Studio website. At the top right, the title "DIRECTOR 7 SHOCKWAVE INTERNET STUDIO" is displayed in red and grey, with the subtitle "the standard for creating and delivering powerful multimedia" below it. To the left of the title is a vertical menu with orange circular icons: "news", "product info", "reviews", "support", "gallery", and "contact us". Below this menu are two more buttons: "search" and "buy". On the right side, there are four circular icons with text: "what is director 7 shockwave internet studio?", "what's new? take the feature tour", "buy director 7 shockwave internet studio now", and "read what developers are saying". Each icon has a small graphic next to it: a play button, a play button, a large number 7, and a stack of colorful squares.

in Director and adapt them for the restricted bandwidth of the Web. The IAL software augments the delivery of multime-

dia content by shifting the processing of visual content to the user's computer, allowing it to take advantage of faster process-

ing speeds, instead of slow download times. Get a shock of your own at <http://www.macromedia.com/software/director/>.

Mozilla tackles Java

Originally set up as the open source home for Netscape's browser software, Mozilla has now expanded its range to another open-source project: a Java Virtual Machine (JVM) known as ElectricalFire. JVMs are engines that execute Java programs. ElectricalFire is a 'Just-In-Time' compiler that optimises processor speeds by only loading and executing the

Java code when it is requested by the user for the first time. Like the original Mozilla browser project, the development of ElectricalFire will take place as an open source project, allowing developers from around the world to alter the code, as long as they make their alterations freely available to the project. It's all waiting for you at <http://www.mozilla.org/projects/ef/>.

The screenshot shows the Mozilla ElectricalFire website. At the top, there's a banner with a horse head logo and the text "mozilla.org". Below the banner, the word "ElectricalFire" is prominently displayed with the subtitle "A compiler for the Java Platform". To the left of the main content area is a sidebar with a navigation menu:

- » The Mozilla Organization
- » Our Mission
- » Who We Are
- » Getting Involved
- » Community
- » Events
- » What's New

Testing ...testing



If you've been working on the development of Web sites using Cascading Style Sheets (CSS), you may have found testing for operability in different browsers and applications to be a little difficult. But now a new test suite from net governing body, the World Wide Web Consortium (<http://www.w3c.org/>) has been released to save you from testing troubles. The CSS Test Suite will allow Web designers to test the quality of different browsers' Style

Sheets support, and then design pages accordingly. Cascading Style Sheets allow Web developers to easily outline how their HTML or XML pages are represented on the screen, making for smaller documents, faster downloads and more complex Web pages. The W3C also expects the Test Suite to be taken up by browser developers who can use it to ensure that their products are fully compliant with CSS specifications.

beginner basics

How to get your site noticed

TIPS FOR CHANNELLING WEB TRAFFIC YOUR WAY ■ by Jacinta Tholmer

You've worked on your Web pages for three months and finally completed them to your satisfaction. Now it's time to attract some visitors to your site to witness all your hard work. So you tell all your friends and have them tell all their friends. Two months later you still haven't clocked 200 visitors. What do you do? Why, you work on promoting your site! Here's how.

Meta tags

Working behind the scenes are some HTML tags that play an important role in the way search engines and their spiders look at your page. The <meta> tag allows you to provide a description of your site and assign keywords that will be used to index it. Here's the code to insert in your page:

```
<head><title>Your Page Title  
Here</title><meta name="keywords"  
content="words that describe  
your page separated by  
commas"><meta name="description"  
content="a descriptive sentence  
or paragraph for your  
page"></head>
```

Be creative with the keywords you use. This is definitely a case where more is better. For example, if your page deals with cars and their maintenance think of all the terms that could be used in a query for this type of information: cars, autos, automobiles, sedans, coupés, roadsters, vans etc., repairs, maintenance, upkeep, mechanics, tune-up, fix, and so on. Many search engines that use meta tags have a spam barrier so don't just use the same words over and over. And keep your description to about 20-25 words (search engines tend to

cut off the rest). When you have completed the meta tags on your page, try Meta Medic! to check how effective they are.



Banners

You see them everywhere. Some are fancy, some are animated, some just tease you enough that you have to click on them to see more. A catchy banner will really draw the hits, and should be high on your list of things to do. You don't have to be an artist working with the highest-priced software, all it takes is a little imagination and a graphics program. The banner should be around 50 pixels high by 450 pixels wide. If you really can't find the time or the inclination to create your own banner, sites such as the MediaBuilder Animated Banner Maker are there to help. And there are heaps of free banner exchange services on the net. Check out the Web site Promoters Resource Centre for a huge list.

Once you have a banner, be sure to make it easy for people to use. Try something like this: Link to this site! Simply cut and paste the following code to use our banner.

```
<a href="http://mysite.com.au/"></a>
```

Here's what the banner will look like on your page:

<Put in a picture of your banner here>

Tracking 'hits'

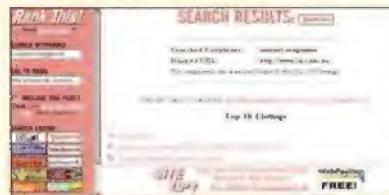
How do people get to your site? What do they do when they get there? The answer to these questions can make all the difference in the world. You can monitor how well your promotional efforts are paying off, and refine your site so it is easier to navigate. By linking to pages that people have come from, you will increase the relevancy of your site. Many hosts can provide programs

Powerful words:

Researchers at Yale University say the twelve most POWERFUL words in the English language are:

- | | |
|--------------|------------|
| 1. Discover | 7. New |
| 2. Easy | 8. Proven |
| 3. Guarantee | 9. Results |
| 4. Health | 10. Safety |
| 5. Love | 11. Save |
| 6. Money | 12. You |

Add some of these to your descriptions and other ads.

URLs:**■ Search Engine Watch**<http://searchenginewatch.com/>**■ META MEDIC!**<http://www.northernwebs.com/set/setsimj.html>**■ Web site Promoters Resource Centre**<http://www.wprc.com/>**■ WebStep Top 100 Free Listings**<http://www.mmgco.com/t100links.html>**■ Rank This!**<http://www.rankthis.com>**■ MediaBuilder Animated Banner Maker**<http://www.medabuilder.com/abm.html>**■ Add It!**<http://www.liquidimaging.com/liqimg/submit/>**■ Signpost**<http://signpost.merseyworld.com/>**■ Submit It!**<http://www.submit-it.com/>**Search Engine Submission**

Here are eight of the big search engines. Your site should be listed with at least all of these.

■ Infoseek<http://www.infoseek.com/>**■ Yahoo!**<http://www.yahoo.com>**■ Excite**<http://www.excite.com>**■ Lycos**<http://www.lycos.com>**■ Alta Vista**<http://www.altavista.com>**■ WebCrawler**<http://www.webcrawler.com/>**■ HotBot**<http://www.hotbot.com/>**■ Magellan**<http://www.mckinley.com/>

that track the URLs for you, or you can use a free service such as Hit Box.

Search engines

Registering with engines one by one takes a lot of time. Nevertheless, it's important to do this with the big ones to ensure your listing is correct. Once that's done, many sites allow you to submit your page to multiple sites for free. Some of the best are Add It!, Signpost, and Submit It!. Another good page to check out for more information is WebStep.

Remember to re-submit your URL on a regular basis. As your page grows you want the new information to be catalogued, and sometimes it takes several tries to get into the system. Search engines are constantly evolving, and the rules they follow for indexing pages change constantly. Knowing the ins and outs of the major search engines can really help you get your pages closer to the top of the list. Check out Search Engine Watch for more information.

Once you are registered with an adequate number of search engines, use Rank This! to find out how highly you are positioned on search results lists. The site features some great tips to get your site a higher ranking.

Your URL

Add your URL to everything you can. If you use a letterhead be sure to display your page's address prominently. It should be on your business cards as well. If you have none of these, it should still go onto your email signature. If you're really creative, you can paste your URL just about anywhere you can imagine. How about a T-shirt or a bumper sticker?

Newsgroups

Newsgroups provide another way to get your page noticed. Before using them you need to read about newsgroup netiquette (advice is widely available). Newsgroups that you can submit your page to include comp.internet.net-happenings and infosystems.www.announce. Find groups that are relevant to your site and post an announcement.

▲ Link Exchange will help connect you to other possibilities.

Reciprocal linking

This is self-explanatory. Find some pertinent Web sites, contact the respective Webmasters and suggest that they add a link to your site in return for a reciprocal link from you. Simple really. Don't pick competitors (obviously), but look for related sites. Draft up a standard email to send to the Webmasters.

▲ Start advertising your Web site with a simple banner...

Join a Web ring

Web rings are "rings" of connected sites, all with a common theme. Run a search using Web ring and your main keywords to find how you might join up. When you find one, join up. Your site will need the approval of the Ring master. If there's nothing available, consider starting one of your own.

Network

Join mailing lists (and post lots). Contact people and share knowledge. Share your own ideas. Become known as an expert in your field. It mightn't be true at first, but answering other people's questions is the fastest way to learn yourself.

So there you have it — a guide to getting your site noticed. Remember though, there's a lot of competition out there and while you may be able to get people to come and look, it takes effort and good content to make them stay. ♦

designing the web

More about mouseOvers!

GET FAMILIAR WITH A NIFTY ASPECT OF JAVASCRIPT IN 5 STEPS ■ by John Horner

The mouseOver is probably the most popular use for JavaScript by a factor of about 50 to one. Even if you don't know it by name (it's also known as the rollover), you're bound to have seen it. It's that effect that causes an image to change when the mouse moves over it.

MouseOvers make a page more lively and add visual flair to a mundane "Help" or "Search" button. How it works, if you didn't know, is that there are actually two images.

The HTML says 'the source for this image is "help.gif"', but the JavaScript has the power to override it, saying 'unless the mouse is over it, in which case change it to "help2.gif"'. The code to achieve that basic mouseOver is in the sidebar.

Let's get clever

Now those regular flash-the-image-I'm-hovering-over effects are all very well, but how about something a little more imaginative? Consider the following:

1. It doesn't have to be the image you're over that changes: you can use a

mouseOver function to change another image elsewhere on the page and therefore the thing affecting the change doesn't have to be an image at all, it can be any link. (See Figure 1).

The mouseOver code in the sidebar can easily be changed to affect a different image, by changing the code in the HREF tag. The parameter, here "ImageOne" inside the brackets, names the image that the function should change.

2. It doesn't have to be mouseOver: there are actually four possible actions, mouseOver, mouseOut, mouseDown and mouseUp.

You might never use these, because if you're going to have another image appear just for that brief moment when the mouse is down, you'd better have a damn

good reason, and the image had better be a small file size!

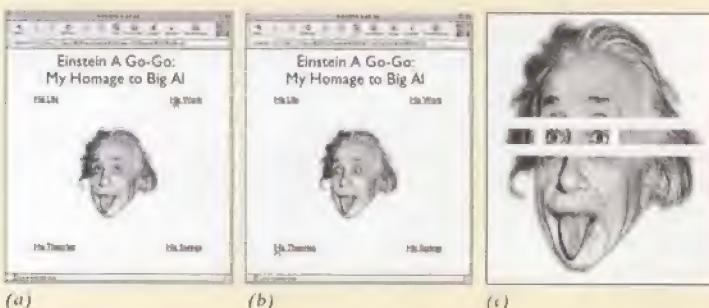
I can't honestly think of a good use for a mouseDown function but mouseUp, on the other hand, only happens when someone has clicked on your links, so you could quite sensibly use it to have images change to show that they've been visited already, the way text links change colour.

3. You can combine animation with mouseOvers. How about a hotlink, which, when the mouse was over it, started to 'burn' using an animation of flames. Or how about a little TV set on your page which shows a little home movie animated GIF when visitors click on a play button?

Animation is another area where you'll want to be sparing with the effect: JavaScript can swap one image for another,

Einstein Au Go-Go

Figure 1: (a) and (b). His eyes seem to follow you around the page! This mouseOver changes Albert's eyes when the mouse is over the text links. The function uses a parameter passed to it by the link WhichDirection, so that one function can respond differently for different links.



```
function LookAtMe(WhichDirection)
{
  if (document.images)
  {
    ReplacementImage="eyes" + (WhichDirection) + ".jpg";
    document.images.eyes.src = ReplacementImage;
  }
}
```

(c) This mouseOver would be horribly wasteful in download time if it changed the whole JPEG every time: image-slicing has been used to split up Albert into five separate JPEGs, because only the small area in the middle needs to change to achieve the comic effect.

Basic mouseOver code

Lines 1–25 go inside the `<HEAD> </HEAD>` tag at the top of the HTML document. Lines 26–31 are the code to make the image "1.gif" flash.

Lines 4–7 pre-load the images, otherwise the mouseOver would have to wait for the hidden ones to load in order to work. These lines also identify the images for the Function below: ImageOneNormal for the image which appears under normal circumstances, and ImageOneChanged for the image which appears when the mouse is over it.

Lines 9–16 define a JavaScript Function, a sort of mini-program, which takes the name of the image, adds the letters "Changed.src" to the end, and makes the new image appear.

Lines 17–24 are the opposite Function, which changes the images back again when the mouse moves away.

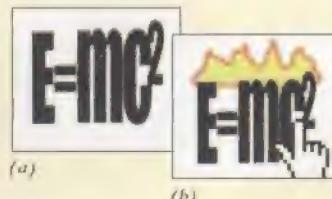
Lines 26–31 show the corresponding code from the link in the body of your document which sends the image's name to the function.

Notes:

- Don't get confused by the different names involved. The file names of the two images concerned are 1.gif and 2.gif.
- What you put into the Name attribute inside the `` tag just identifies that particular point in the document for JavaScript purposes. There's no relation between that and the file name.
- The function then changes which images appears at that named point in your document to the source images named in lines 4–7; those names do have to agree for the function to work.
- Why all those "if" clauses? This code works just fine in JavaScript 1.1 browsers without them, but in a browser which only reads JavaScript 1.0 it'll just give ugly error messages. There's nothing worse than people getting a detailed message like "line 14, char 10: document. ImageOne has no properties" to make you look like you don't know what you're doing.

Figure 2: (a) and (b)

Combine animation and mouseOver so that real flickering flames appear at the top of this link when the mouse is over it. Again, you only need to change the top few pixels of the image, not the whole thing, so image-slicing should be used to save on downloads.



but it has no control over the animation. You wouldn't be able to rewind your home movie to the beginning, for instance but the 'burning hotlink' could achieve a nice little effect with a simple two-frame animation of flames. Image-slicing would be appropriate here. (See figure 2)

4. It doesn't have to be just one image that changes: you can write a function that lists two or more images and have them both

change. Imagine a map of Australia, for instance; when the mouse was over Perth, one image could change to show the weather forecast for today, and another for tomorrow.

5. Speaking of maps, you can combine imagemap code with JavaScript code. The `<AREA>` tags of client-side imagemaps are links, after all, so you can include the 'on mouseOver' attributes along with them. JavaScripts do all these things and more, and

```

1: <SCRIPT LANGUAGE = "JavaScript">
2: if (document.images)
3: {
4: ImageOneNormal = new Image;
5: ImageOneNormal.src = "1.gif";
6: ImageOneChanged = new Image;
7: ImageOneChanged.src = "2.gif";
8: }
9: function ChangeTheImage(imgName)
10: {
11: if (document.images)
12: {
13: ChangedImage = eval(imgName + "Changed.src");
14: document [imgName].src = ChangedImage;
15: }
16: }
17: function ChangeItBackAgain(imgName)
18: {
19: if (document.images)
20: {
21: NormalImage = eval(imgName + "Normal.src");
22: document [imgName].src = NormalImage;
23: }
24: }
25: </SCRIPT>
26: <A HREF = "Somewhere"
27: onMouseover = "ChangeTheImage('ImageOne')"
28: onMouseout = "ChangeItBackAgain('ImageOne')"
29: ALT="Somewhere">
30: <IMG SRC="1.gif" name="ImageOne" border="0">
31: </A>

```

they can be accessed at www.javascripts.com.

A word of caution: these variations on a theme can make your pages more interesting and memorable, but subtle effects are more professional than in-your-face and over-the-top ones. Enjoyable as this stuff is, remember that nobody actually needs it and that some people's browsers won't let them see it anyway. Exercise restraint and good design principles, and you'll be fine. ♦

coding the web

Start Java applet programming!

JAVA APPLET DEVELOPMENT FOR THE UNINITIATED ■ by Roger L Main

Have you ever wished there was a way of running an application under a browser? Let's face it, HTML and server-side processors can do many of the things you might want to do on the Web, but not everything. Java fills in the blanks. If you know some C and the concepts of object-oriented programming then you've already got all the groundwork you need to program in Java. If not, then the brief look we'll be taking over the next three issues will serve as a good introduction.

Le'ts jump right in with a simple example. Just about every tutorial on programming starts with the "Hello World" example, so here it is written as a Java applet:

```
import java.applet.*;
import java.awt.*;
public class helloworld extends
Applet {
public void init () {
setBackground (Color.white);
resize (100, 20);
// init;
public void paint (Graphics g) {
g.setColor (Color.black);
g.drawString ("Hello World!", 1,
15);
// paint;
// helloworld;
```

Step one: import

The first two lines contain import statements. Your Java compiler comes with libraries which contain objects — pieces of pre-written code that we use or modify. We've chosen two libraries, here: the applet library which contains the Applet

object that our applet will be an extension of and the awt library which contains the output objects we'll be using. The `*` means "include all the objects in the library". All statements end with a semicolon and anything beginning with `//` is a comment.

Step two: declare

Next we declare our applet. We're creating a new class (or object) that we want to be accessible to the outside world — in this case the browser — so we declare our object using the keyword `public`. Then we use the keyword `class` because we're creating a class which, essentially, is another term for an object. We give it a name `helloworld` and then use `extends Applet` which tells the Java compiler that we'll be modifying the Applet class to make our own class. Note that Applet must be spelt with a capital "A". Java, like the C language it's based on, is case-sensitive so "applet" and "Applet" do not refer to the same object. Also, like C, we use the symbols `{` and `}` to enclose the code block.

Both `init` and `paint` are pre-defined but empty subroutines (or, in object-oriented terms, methods) of the applet class. Here, we're defining their behavior when they're

called. Without our code they'd be empty and, therefore, would do nothing.

Both are `public`. This means that any other class can access them. If they were declared `private` then only other methods in this class could access them. They return no values, so the keyword `void` is used and the `init` method takes no arguments, thus the empty closed parentheses. `Paint` takes one argument — a `Graphics` object which we've named `g`.

Step 3: init

`Init` has two statements. The first, `setBackground` sets the background colour of the applet. It does so by calling a value in the `Color` object, that being `white`. Like most object-oriented languages, Java uses the dot notation to reference methods and values within objects — `Color` is the object and `white` is a pre-defined value.

The second statement, `resize` sets the size of the applet's canvas — the visible space in which the applet will run which, incidentally, is the `Graphics` object `g`. I've used the arbitrary values of 100 pixels wide by 20 pixels deep, but this can be as big as you like or as small as one pixel by one pixel.

`paint` also has two statements. The first

`setColor` sets the colour of the text to black (which, incidentally, is the default). The second, `g.drawString` draws the text "Hello World!" on the canvas one pixel to the right of the left-hand edge and with the bottom of the text 15 pixels down from the top of the canvas.

And there you have it, a complete Java applet. Simply type this code into your favorite text editor, save it as ASCII text, give it a name and run your Java compiler (which you can download from <http://java.sun.com/products>) from the command line by typing: "javac helloworld.java" or whatever you called it. By convention Java source code files have the extension ".java". You should end up with a file called "helloworld.class." However, before you can run it you need to create an HTML script that incorporates it, like this:

```
<!-- begin HTML script -->
<html>
```

```
<head><title>Test
Java</title></head>
<body>
<!-- some other HTML stuff -->
<applet code="helloworld.class"
width=100 height=20>
</applet>
</body>
</html>
<!-- end HTML script -->
```

This should look familiar to you. It's a good old fashioned HTML script with one new feature — the `<applet></applet>` tags. These, as you may have guessed, indicate where the applet features on the HTML page. I've got them just sitting in the default upper, left-hand corner, but you can put them anywhere you can put normal HTML tags.

There are two things that may have caught your eye: firstly, the name of the applet

appears in the code argument. This is the applet equivalent of the `src` argument that you use whenever you paste an image on your Web page in HTML. Secondly, width and height are defined. You may ask why we need to do this when we've declared this in the applet. Good question. The answer is that the `resize` command that we used in the applet code tells the applet how big to make the canvas. The `width` and `height` commands as used here tell the browser how big to make the applet.

You may also ask why you need a closing `</applet>` tag if there's nothing between them and, of course, why you need to create this applet at all when you can just output "Hello World!" in straight HTML. The answer to the first question has to do with parameters and the answer to the second is that there are other uses of Java applets besides outputting text. Both of these will be the subject of the next article, so stay tuned! ♦



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**Sun Announces the
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faq

Beginner

Intermediate

Advanced

ISP inaction

Q I am using a local ISP, and as far as I'm concerned they're terrible! What happens is this: when I connect, I log on and then when I try to surf the Internet, or use a program like ICQ, it just sits there doing nothing. This problem is always happening and when I email them and get no response. Should I give them the flick or what?

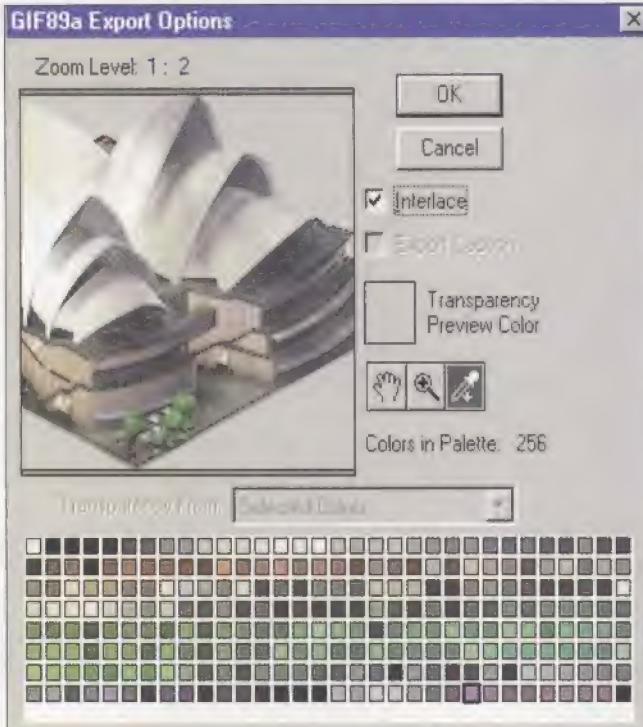
Jonathan Wells
email address withheld

A At times when you dial in to your ISP you may get a bad modem connection, which connects at a slower speed than usual, hampering your Internet usage or even disconnecting you a short time later. Often attempting another connection will prove more successful, but if this is occurring persistently there may be a more pressing problem.

As far as the Web browsing problem goes, a likely possibility is that if your ISP uses a proxy server it could be down, or your proxy configuration may not be right. Check with your ISP to make sure your preference settings are correct.

ICQ servers are also frequently down, and this is a fault beyond the control of your ISP. You can try connecting to others by listing alternative servers in your Servers list under the ICQ Preferences menu, and be sure to check the box "Move last successfully connected server to top of list".

If the problems continue and you're finding the service you're paying for to be unsatisfactory, perhaps it may be an idea to give another ISP a try..



▲ Making a Gif89a export using Photoshop.

Transparent pixels

Q Do transparent pixels in gif image take up as much space as normal colours? What I mean is, would having a gif with a lot of transparent pixels take up less space than one with no transparent pixels for the same sized image?

Michael Haydock
mhaydock@tartarus.uwa.edu.au

A When you make a Gif89a export from Photoshop (or a similar graphical program with that capability) you are, in effect, converting all the chosen colours you want to be made transparent into one "Transparency Index Colour" (usually that common shade of grey) which is then masked from view. If you re-open your gif image in Photoshop you'll notice that the areas made transparent are now

this default shade of grey. This default grey behaves the same way as any other colour in the 256 colour palette and so will take up just as much file space as a 'normal colour' no matter how large the transparent area is.

Your image file will be marginally smaller if you choose to make more than one colour in the image transparent as you have reduced the number of colours. If you have only selected one background colour to be transparent, however, the number of colours has not changed and neither has the image file size.

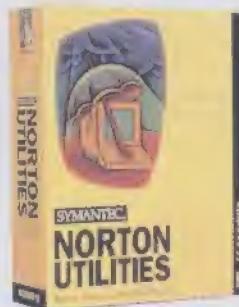
Logo a-go-go

Q I have just made my second homepage, complete with Java buttons. I would like to make my logo rotate in a 3D format. Most programs I have used only let you rotate an image flat, yet I wish to rotate an image while

If you've been looking for answers, this is the place to find them. Send your questions to faq@ia.com.au

Please note: the following information must be provided if possible — operating system, version numbers, error messages or anything else you feel may assist in diagnosing the problem that is being experienced.

The best question or tip each month wins a copy of Symantec Norton Utilities.



keeping it vertical. Can you help me find an image editing program that will allow me to do that?

Scott Holland

hollstar@hypermax.net.au



There are number of applications out there that allow you to create the effect you've described. Two of the better and more user-friendly ones are:

3D Impact! Pro 1.25 from Crystal Graphics (<http://www.crystalgraphics.com/>) which creates 3D animations that rotate and allows you to add drop shadows, sparkles and reflection effects; and Pixel 3D 1.1 from Forward Design (<http://www.forwarddesign.com>), which also allows you to create 3D logos for the Web.

Tip of the month

In the **February** issue (issue 40) of *Internet.au*, we fielded a question asking if it were possible, using JavaScript or otherwise, to determine the screen resolution of the browser viewing a Web page and threw it open to you the readers. We've received a lot of feedback since, and it seems although there is not one method that is compatible with all browsers and versions, a number of ways do exist of achieving the desired result.

■ The best and most comprehensive response came from Bernie Cook, who earns our **Tip Of The Month** this issue:

In Internet Explorer 4.x and Netscape Navigator 4.x you can use DHTML to determine the browser's window size, and from this you can therefore calculate the screen's resolution on the client-side. The variables: offsetWidth and offsetHeight calculate the browser window size for you. Hence you may use the onLoad event to calculate the screen resolution initially upon building a page client-side to allow for screen resolution.

```
<script language="JavaScript">
<!--
var screenWidth;
var screenHeight;
function getPixels()
{
if (document.all)
{
screenWidth = document.body.offsetWidth;
screenHeight = document.body.offsetHeight;
}
else if (document.layers)
{
screenWidth = window.innerWidth;
screenHeight = window.innerHeight;
}
document.formname.displayWidth.value =
screenWidth;
document.formname.displayHeight.value =
screenHeight;
return false;
}
function timer()
{
var x;
getPixels();
x = window.setTimeout("timer()", 1000);
}
//-->
</script>
```

Internet Explorer 4 can also use VBscript if so required.

```
<script language="VBScript">
<!--
sub doit()
document.write "<html>" & vbCrLf & ""
document.write "<head>" & vbCrLf & ""
document.write "<title>Browser Resolution Properties</title>" & vbCrLf & ""
document.write "</head>" & vbCrLf & ""
document.write "<body bgcolor=""#FFFFFF"" text=""#000000"">" & vbCrLf & ""
document.write "<p align=""center""><u><font face=""Tahoma"" size=""2""><strong>Resolution.
```

```
ASP</strong></font></u></p>" & vbCrLf & ""
document.write "<p>&nbsp;</p>" & vbCrLf & ""
document.write "<p align=""center""><strong><font face=""Tahoma"" size=""2"">" & vbCrLf & ""
document.write "Browser: <font color=""#0080C0"">" &
navigator.appName & "</font><br>" & vbCrLf & ""
document.write "Version: <font color=""#0080C0"">" &
Mid(navigator.appVersion, 1, 4) & "</font><br>" & vbCrLf & ""
document.write "Screen Resolution:<font color=""#0080C0""> " & screen.width & "x" & screen.height & "</font><br>" & vbCrLf & ""
document.write "Browser Window Size:<font color=""#0080C0"" face=""Tahoma"" size=""2"">" & document.body.clientWidth & "x" & document.body.clientHeight & "</font></strong><br>" & vbCrLf & ""
document.write "</p>" & vbCrLf & ""
document.write "</body>" & vbCrLf & ""
document.write "</html>"
```

With Internet Explorer 3.x there is an http request string parameter passed between transmission just like the UserAgent value and the browser version etc. This parameter passes through the screen resolution. Using some ASP script you can obtain this value by returning the value for: Request.ServerVariables("HTTP_UA_PIXELS"). The ASP script is used because it can access the HTTP request string. Netscape 3 requires the following code to determine the screen resolution:

```
var tools = java.awt.Toolkit.getDefaultToolkit();
var size = tools.getScreenSize();
var screenwidth = size.width;
var screenheight = size.height;
```

From all this you can use screenwidth and screenheight to return the pixel dimensions of the screen resolution.

Bernie Cook

bernard@webnet.com.au



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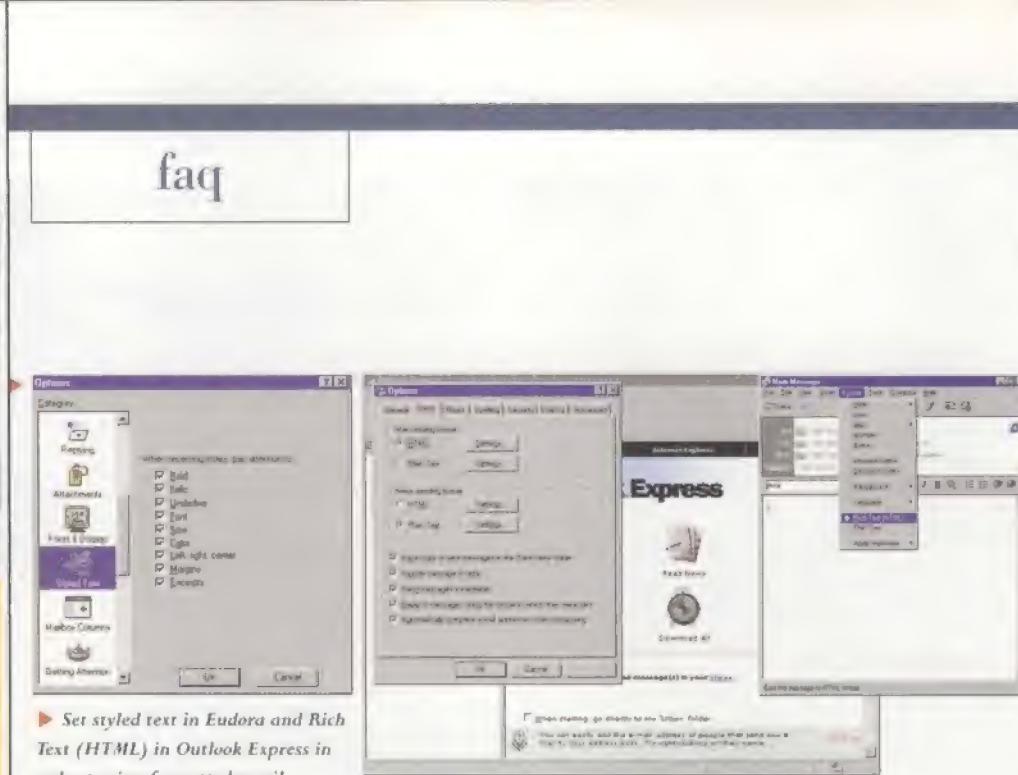
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► Set styled text in Eudora and Rich Text (HTML) in Outlook Express in order to view formatted email.

Visit their Web sites for further details and free trial software to download and test drive.

You've got email

Q I have found out that I have a small problem receiving email. When a message is sent to me containing different fonts, bold, italics or coloured type, it's merely reproduced in Times New Roman and in black, with no differentiation in type style.

I've looked at all settings but cannot find anything (with a big label attached) that shows what needs to be fixed. In your infinite wisdom can you help this bewildered novice?

I started with Outlook Express and assuming it must be the email package I have also used Pegasus and Eudora Pro with the same lack of result.

I have considered "painting by numbers" but consider this to be worse than snail email. I am becoming very frustrated and fear I may inflict terrible harm on this machine in front of me. Please point me in the right direction.

Thanks for any assistance you are able to give.

Keith Foxley
thefox@hard.net.au

A In order for you to be able to see this formatting in your emails, your email program must be able to recognise the HTML coding that it contains.

To read formatted email in Eudora, simply go to Tools > Options > Styled Text. You will then be able to choose when receiving styles, which ones are displayed, be they bold, italics, colours, fonts, point size or justification.

In both send and receive formatted email in Outlook Express, you can change the format from Plain Text to Rich Text (HTML) by either going to Format > Rich Text (HTML) when you Compose Message or selecting from the main toolbar Options > Send and changing the Mail Sending Format from Plain Text to HTML.

DirectX

Q What is DirectX? I want to install a game but it says you have to have DirectX.

Bunotvil@aol.com

A Microsoft DirectX is a group of technologies designed by Microsoft to make Windows-based computers an ideal platform for running and displaying applications rich in multimedia elements, such as full-colour graphics, video, 3D anima-

tion and surround sound. Built directly into the Microsoft Windows family of operating systems, DirectX is an integral part of Windows 98 and Windows 2000, as well as Microsoft Internet Explorer 4.0. DirectX components may also be automatically installed on your system by advanced multimedia games and applications written for Windows 95 — if DirectX is not already on your system and it does not come with the game's installation files you can download the required DirectX components and drivers separately from <http://www.microsoft.com/directx/download.asp>. Make sure also that your graphics card and sound card are DirectX compatible.

Worldly Wide Web

Q I've been told that it is possible to transform my browser at will so as to be able to get to foreign sites in that local language. In other words, my browser receives everything as it is sent by that site. Can I, for instance, being a Greek, "Greekify" my browser? I know a Russian person as well who'd love to do the same in Russian, Ukrainian and Polish. Am I in cuckoo land or is it truly possible?

George
georgeheo11@yahoo.com

Question of the month

Port-a-modem



What can you tell me about wireless modems? Do you know of any wireless ISP providers in Brisbane?

Dave
embury@theinternet.com.au



Wireless modems are portable modems installed in laptops and are designed to use the GSM-mobile network rather than the standard PSTN land-based phone system. As GSM (Global System for Mobile Communications) is digital, you can connect your GSM-enabled mobile phone to your laptop computer and send or receive email and faxes, browse the Internet, or securely access your company's LAN/intranet whilst on the move. As it uses radio frequencies, GSM is a wireless platform, which means users of GSM can be fully mobile, without worrying about adapters, telephone jacks, cables, and so on. Connection to the GSM network involves a connection kit containing a cable and software for a specific GSM handset. Kits are available for a wide range of GSM phones. You do not need a wireless ISP as such, any ISP will suffice, just a GSM-enabled mobile phone and quite a bit of money as you'll be charged at your timed mobile rates in addition to your Internet access charges. To learn more visit Intel's GSM Knowledge Data site <http://www.gsmdata.com/>

The screenshot shows the homepage of the GSM Data Knowledge Site. The page features a banner for 'GSM Data Knowledge Site' and 'intel'. It includes links for 'GSM Data Today journal', 'What Is GSM?', 'Mobile Data Initiative', 'Markets', 'Using GSMdata', 'The Future and the Context', 'Press and Events', 'Utilities', 'Travelers' center', and 'Yellow pages'. A central image shows a person using a laptop with a cellular connection. Below the main menu, there's a section titled 'Highlights & updates' with a news item about the MDI's 5th anniversary. The bottom of the page has a 'Feedback' link and a 'PCS Data' section.

▲ Visit Intel's GSM Knowledge Data site to learn more about wireless computing: <http://www.gsmdata.com/>



Internet Explorer supports a wide variety of languages.

You can view Web pages in many different languages, provided the author has created a version in that language. To see sites as they were locally intended instead of the usual garbled mess, download one of Microsoft's language packs

that let you view pages using international character sets (including traditional and simplified Chinese, Japanese, Korean, Turkish, Cyrillic and Greek). The Internet Explorer 3 multilanguage pack can be downloaded from <http://www.microsoft.com/ie/ie3/multilang.htm> and the Internet

Explorer 4 add-ons pack can be downloaded from <http://www.microsoft.com/windows/ie/download/addon.htm>. After installation you will be able to click the Language button on the Internet Explorer toolbar whilst browsing and select the appropriate language. ♦



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downloads

ZinCheck 2.0

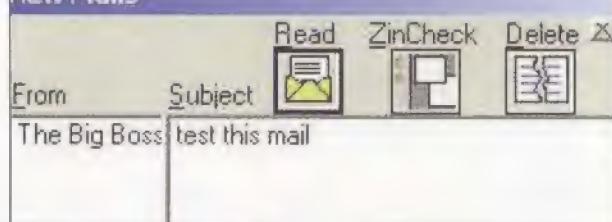
95 98 NT

ZinCheck Mail lets you access and monitor multiple Web-based email accounts right from your desktop. It even adds features to your Web-based email accounts that providers like Hotmail (<http://www.hotmail.com/>) and Yahoo Mail (<http://www.yahoo.com/>) don't have. ZinCheck speeds up your email access because it doesn't spend time downloading images, only the text information required for the email. With ZinCheck you can avoid all the ads, sponsorship blurb and other distracting information on the Web pages of your favourite Web-based mail accounts. If you're worried about online charges, down-

load all your mail and respond to it offline. You can also search all your mails on all accounts based on certain criteria; use your address book from all accounts to send mail from any account and synchronise your remote address books; or set up filters to automatically reply to, forward or delete an email, based on certain user defined conditions. You can also check mail folders other than the in-box — especially important if you're filtering mail.

ZinCheck is unobtrusive, checking mail in the background while you work and the "live update" feature makes sure you're running with the latest version.

New Mails



AT A GLANCE...

| | |
|---------------|---|
| Item: | ZinCheck 2.0 |
| Size: | 1.48Mb |
| Status: | Shareware |
| Requirements: | IE4.0 |
| Platforms: | Win95/98/NT |
| Where: | http://www.zinchak.com/ |
| Rating: | ★★★★★ |

Looking for cool new toys and free tools? You've come to the right place. All of the products reviewed here are freeware or shareware — meaning you pay a small fee to use them. They cost nothing to download from the Internet.

Looking for more downloads?

Try the following:

PC

<http://www.shareware.com>
<http://www.tucows.com>

Mac

<http://the.ausmac.net>
<http://www.ambrosiasw.com/games.html>

Amiga

<http://fp.livewire.com.au/pub/aminet>

OS2

<http://www.os2.com>

Games

<http://hyperactive.com>

Send your favourite download to:
downloads@ia.com.au

IMS Web Spinner

95 98

IMS Web Spinner is a bargain basement WYSIWYG Web editor that features the same kind of object and positioning paradigm as the much-lauded NetObjects Fusion (<http://www.netobjects.com/>). Web Spinner is very much a NetObjects Junior and obviously doesn't have the same feature set as its commercial big brother. However, if you want to whip up a personal Web site or a small business site on a shoestring budget, this could be just the thing you're after.

Interestingly, Web Spinner appears to dispense with older styles of HTML formatting and uses only the Cascading Style Sheet definition for positioning objects and the like. Traditional page layout tricks like table formatting are nowhere to be seen. Although this doesn't bode well for users with earlier



browser versions, it does mean that page layout and development can be considerably simplified.

Web Spinner supports most popular image formats and includes rudimentary graphics tools. Best of all, Web Spinner handles Rich Text letting you import word processing documents with ease. In short, if you're happy to run the risk of annoying those visitors who haven't upgraded their browsers IMS Web Spinner has plenty of options and is great value for money.

AT A GLANCE...

| | |
|-----------|---|
| Item: | IMS Web Spinner |
| Size: | 2.8 Mb |
| Status: | Shareware \$US29.95 |
| Platform: | Win95/98 |
| Where: | http://www.virtualmechanics.com/ |
| Rating: | ★★★★★ |

Vern & Blanch

95 98 NT

Vern is the Windows "Virtual Environment Resource Manager" from One Guy Coding. Vern essentially allows you to expand your virtual desktop to multiple screens (like X-Windows for the UNIX minded). This means you can have Word in one screen-full and then flick to a multitude of directory windows, then perhaps across to your FTP program or whatever. The amount of Virtual desktop space is really only limited by the memory you have installed on your system.

Each virtual desktop can have its own colour scheme and wallpaper, and you can choose to hide all the files and folders you might have on your desktop to get rid of the inevitable clutter. Each application can be assigned its own priority so if you have lots of apps open you can stop things from tying up too much CPU time.

One Guy Coding's other offering is Blanch, a button launcher that comes bundled for the same price with Vern. Blanch provides a fully customisable toolbar that you can use to pop

One Guy Coding

Day In And Day Out

The screenshot shows a web page with a purple header bar containing links for Home, Vern, Blanch, Netdate, Registration, Support, and Kudos. Below the header is a yellow sidebar with icons for Netscape Navigator and Microsoft Internet Explorer. The main content area has a yellow background and displays news items. One item is highlighted in red: "Blanch was 110th best of the day at www.hotlist.com, with a 94.9% rating!" Other news items mention Vern 1.1 Release (Oct 29, 1998), Automachron beta released (Sept 23, 1998 - NT4 problem fixed), Vern 2.0 released (Jun 2, 1998), Blanch 1.9 released (July 27, 1998), and ming 1.1 added (March 26, 1998). A sidebar on the left shows a small icon of a computer monitor with a flag and the text "Visitor #62100".

a shortcut to all of your favourite applications, similar to the MS Office toolbar. There are all sorts of options for importing, dragging and dropping and editing the list of programs you can activate from Blanch. Together Blanch and Vern form another welcome enhancement to the Windows environment.

AT A GLANCE...

| | |
|-----------|---|
| Item: | Vern & Blanch |
| Size: | 200Kb (Vern) & 155Kb (Blanch) |
| Status: | Shareware \$US20 |
| Platform: | Win95/98/NT |
| Where: | http://www.cam.org/~oneguy/ |
| Rating: | ★★★☆☆ |

Neoplanet 2.0

95 98 NT

Neoplanet is not really a new Web browser in its own right — it's more like a new skin for your Internet Explorer. Neoplanet uses all the HTML-rendering power of IE but allows

you to customise the look and feel completely. In addition, Neoplanet adds a few additional features to improve your overall browsing experience. The "schemes" are fantastic — they're basically desktop themes for your Web browser and they're very easy to implement.

Just click on a link in the growing scheme archive and that's that. Of course you can build your own, but for the moment there's little or no help. Neoplanet also adds additional toolbars and

options that greatly enhance the whole functionality of the user interface in addition to making it look great.

Neoplanet has its own simple and robust email system, reminiscent of the way Netscape does mail. The Channel Designer comes complete with a library of predefined IE Channels and gives you the power to quickly create your own. Search features include a specialised Neoplanet search window integrating C-Net's Snap! (<http://www.snap.com/>) directory and the popular Alexa (<http://www.alexa.com/>) "What's Related" tool.

AT A GLANCE...

| | |
|---------------|---|
| Item: | Neoplanet 2.0 |
| Size: | 1.9Mb |
| Status: | Freeware |
| Requirements: | IE3.1+ |
| Platform: | Win95/98/NT |
| Where: | http://www.neoplanet.com/ |
| Rating: | ★★★★★ |



reviews

Apple G3 PowerPC

Red-hot G3 smokes the competition

Well, if you're even vaguely interested in the field of personal computing, there's pretty much no way you could have missed the late 90s Apple renaissance. With Steve Jobs back at the helm, Apple released the revolutionary iMac, improved its OS and just kept releasing better and better computers. And 1999 isn't looking like it's going to be any different — especially if the new G3 computers are anything to go by.

You're on fire!

The model that I tested for this review was the so called 'bottom of the line' 300MHz G3 PowerPC. Not much about this computer appeared to be budget quality. Of course with a price tag of nearly \$3500, sans monitor, you expect pretty impressive performance.

Just getting this computer out of the box is an experience — the industrial design on the new range of G3s is stunning with the stylish Bondi blue and white colours and distinctive square design making quite a statement on the desktop.

The model that I was testing boasted a high quality combination of a 512Mb backside cache, 100MHz system bus, 64Mb SDRAM, 6Gb ultra ATA drive, ATI RAGE 128 with 16Mb of graphics memory to complement the 300MHz G3 PowerPC processor.

Taking the computer through even the most basic of paces immediately showed that the processing speeds have really taken off. The inclusion of the 100MHz system bus definitely fixed up one of the short-

comings of earlier models and seems to have had a significant effect on performance. And when talking about performance you can't go past the inspired decision to include as standard the ATI RAGE 128 graphic accelerator card with 16Mb of graphic memory, delivering a level of performance to

games and
publish

graphics, sound, multimedia and publishing markets. But the audience doesn't stop there — with the addition of the ATI Rage card Apple is sure to entice more than a few cashed up games enthusiasts.

Burning bridges

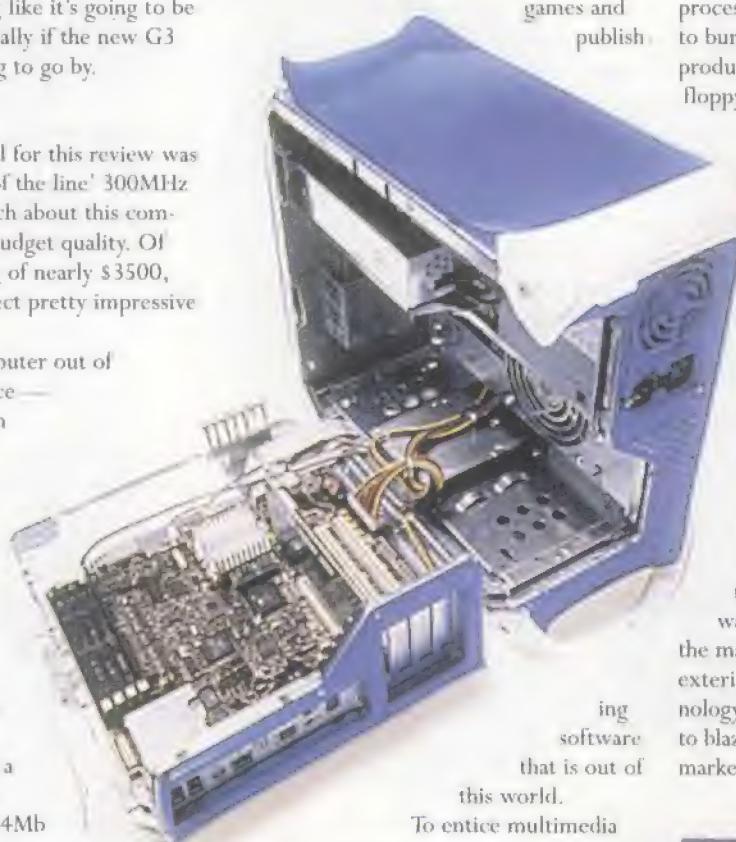
While the G3 may produce blisteringly hot processing speeds, Apple has also managed to burn more than a few bridges when it produced its latest model. The G3 has no floppy drive or SCSI ports, which means

you won't be able to plug in your old zip drive either. While this may not be such a problem for new users, if you're a long-time Mac devotee the irritation at not being able to use all those expensive peripherals (until you get converters) could be enough to get you a little hot under the collar.

Warm praise

All up the new G3 is something pretty special when it comes to multimedia performance and straight out processing speeds. Even the bottom of the line edition that I was testing would blow any Pentium on the market out of the water. The stylish exterior is mirrored by equally stylish technology which is sure to see Apple continue to blaze an impressive trail out in the market. ♦

— by Gordon Finlayson



ing
software
that is out of
this world.

To entice multimedia

developers and improve networking, the new G3s include USB, 10/100 base-T Ethernet and the new FireWire inputs. The addition of FireWire is sure to be a bonus to multimedia developers, allowing for direct video importation from digital camcorders at 400Mbps.

Like the old G3s, the new line of PowerPCs is firmly aimed at the high end

AT A GLANCE...

G3 POWERPC

Price: \$3499

Pros: Fast, sexy, cool; is there anything more you could want from a computer?

Cons: May have problems connecting to old peripherals

Manufacturer: Apple

Where: <http://www.apple.com.au>

Rating: ★★★★★



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WWW.FLEX.COM.AU

Printing Web pages for posterity

WebRecord addresses a common surfing problem — how to make a permanent, printed record of a Web page which lists the links on it. My approach has previously been to save a page as a .PDF file. This works, to a point: I have some control over the size and layout, and they print OK, but there's no record of hyperlinks. Nor is it a rapid process.

Not a "sucker"

WebRecord tackles precisely this task. It's not a browser, although it contains an HTML parser. Nor is it a Web "sucker" to keep a disk copy of a site — in fact it won't save a URL to disk at all. It simply loads,

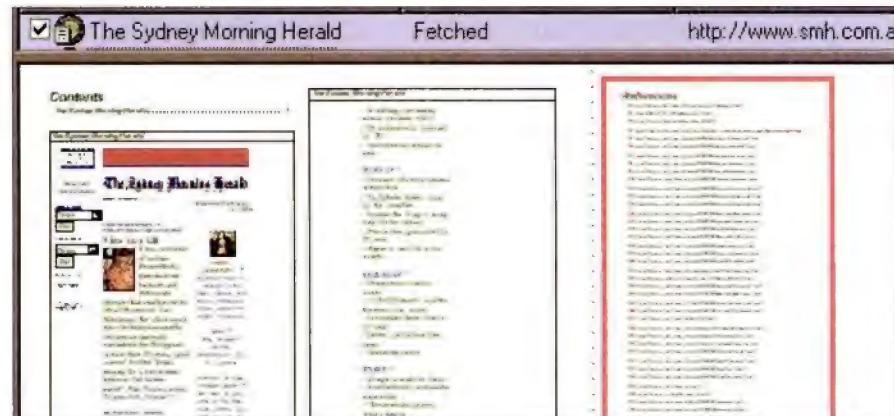


In two-column mode URLs are easy to read on screen as well as in print. Footnotes to the hyperlink list (circled) are automatically inserted.

paginates and indexes a URL or URLs as requested, then prints them. Interspersed through the layouts are footnotes to the hyperlink reference list printed at the end. To use WebRecord you define a "page set" — a set of URLs to record. For this review I chose the URLs of *The New York Times*, *The London Times*, and *The Sydney Morning Herald*. After all three had loaded I chose a three-column layout for economy of space. Web graphics are usually low resolution, so this didn't hurt their quality at all and the text scales perfectly, naturally. WebRecord laid out the three pages, breaking them across columns as necessary. Finally, the 127 cross-referenced hyperlinks were listed at the end.

Simple function

Any set of URLs can be saved as a page list and updated as required. On opening a list,



▲ After the URLs are shown WebRecord collates a list of hyperlinks (boxed in red) at the end of the page list.

WebRecord simply loads all the references. If it can't find a URI it loads any others and shows a message. If part of a site is unavailable (an image, for example), it loads the rest of the page and notes the omission.

Page lists can specify what other pages might be loaded without explicit instruction

for example, you can load all other referenced pages, all other referenced pages on the same server, or in the same- or sub-directories on the same server. URLs can be extracted automatically from the history lists of Navigator 2.0+ and Internet Explorer 3.0+, provided WebRecord is running concurrently. You can drag and drop URLs, as well as copy/paste from (or to) any text application. Finally, you can "disallow" pages that will not be fetched.

"Low-tech" support

Canon emphasises the quality output of a colour inkjet — all colours preserved, links highlighted etc. I used a laser printer with good results.

WebRecord supports a relatively "low-tech" set of files and tags: it uses the HTML 2.0 tag set with some HTML 3.0 additions such as frames. It doesn't support style sheets, DHTML or other modern tags. It supports JPG, GIF, PCD, BMP and FPX images (some of these are intended for browsing local files), but it doesn't support

plug-ins, eliminating QuickTime, ActiveX, PDF and Shockwave.

Page encoding can be either Japanese, Latin-1 or Unicode and is self-sensing.

The WebRecord package is sparse — the box contains the CD jewel box, but no documentation of any kind. Online documentation is excellent, but if your install has failed there's not much help to be had short of phoning Canon.

Nitpicks include the inability to click a link in the preview window to add a URI to the list, the inability to change the font or size of the reference list, and the fact that URLs in the reference list get truncated if they extend longer than a column-width. These aside, WebRecord does what it does well. If you save pages on a regular basis, then WebRecord is an excellent tool to have. ♦

— by Michael Priest

AT A GLANCE...

CANON WEBRECORD

Price: \$54.95

Pros: Nice, customisable layout of fetched URLs. Excellent hyperlink referencing. Easy to use.

Cons: Support of only HTML 2.0 and some HTML 3.0 tags, no formatting control over hyperlink referencing.

Manufacturer: Canon Australia Pty Limited

Where: <http://www.canon.com.au>

Rating: ★★★★☆



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B BUSINESS
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Software course for Cold Fusion

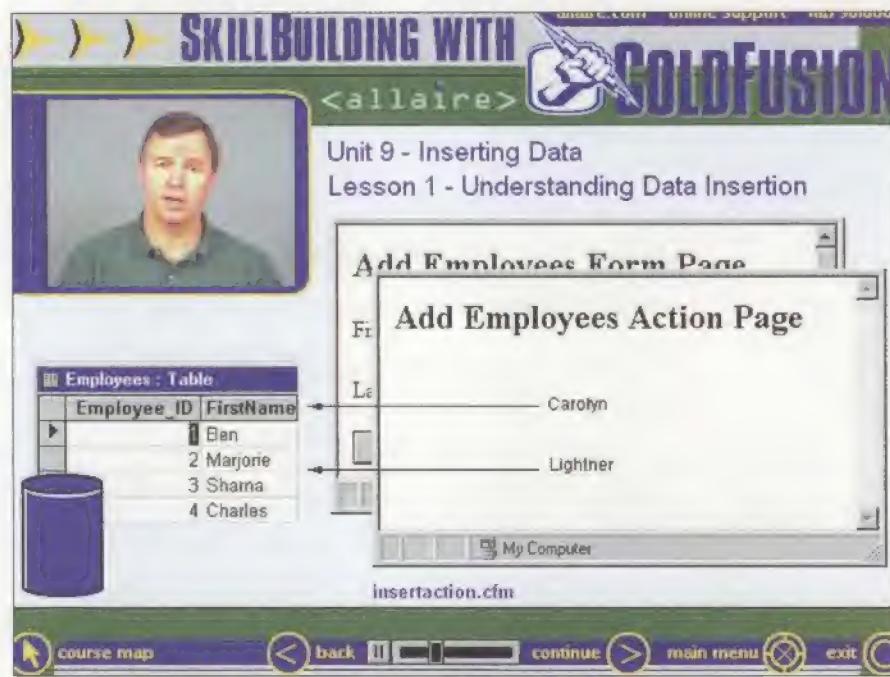
If you are looking at developing Web applications and database query tools then you have probably been considering using Cold Fusion, the most popular rapid application development tool. For Web developers who don't have a hard core programming background such as VBscript or C++, Cold Fusion offers an easy-to-learn environment. But getting started using any new tool is challenging, especially when you need to learn as you work!

Fortunately, learning Cold Fusion skills need not be done in isolation. Allaire, the creator of Cold Fusion, offers developers' support listservers, localised developers' meeting groups, and also provides courses in the major capital cities of Australia. There are also many excellent online tutorials for Cold Fusion learners at Allaire's developer support site, <http://alive.allaire.com>

Getting started

If you would like to undertake a course tailored for beginners in Cold Fusion, you might also consider Allaire's software course, Skill Building with Cold Fusion. This is a CD-ROM and workbook which offers a 12-module course with interactive, guided lessons. It's designed for those who have already used HTML to build Web sites, and are familiar with the concept of SQL (structured query language). The course is most useful as an introductory training ground, but also has wider application to designers or producers who want to develop their understanding of the Cold Fusion development environment.

The course is designed to help you configure your Cold Fusion server, build basic applications, create and configure databases, and build Web interfaces to query and publish the data. The package consists of a CD-ROM which includes the course itself, and evaluation copies of Cold Fusion application server and Cold Fusion studio. It also includes a lab workbook which will help you get set up, with step-by-step procedures that guide you through each exercise, and plenty of advice for when things don't work.



▲ Interactive guided lessons make Cold Fusion a practical way to learning new Web skills.

Just like school — only better!

From an educational perspective, the course is well-structured. Many CD-ROM courses only offer talking heads and text lecture notes, making you wonder why they weren't produced as a reference book instead. In comparison, Skill Building with Cold Fusion is well-structured, presenting each new module in several ways, providing multiple representations of key ideas. It not only offers video 'lectures' by experts that step the user through each stage of application development, but supports these sessions with animations to explain the concepts, and a series of quizzes and interactive exercises to help the user test their knowledge and evaluate their progress throughout the course. The combination of tutorials, quizzes and labs help the learner to fully understand the Cold Fusion development process.

Small quibbles

The course does have some minor issues: some users might be annoyed by the American accents of the videos and voice

overs, and if you are starting the course from the perspective of having a particular project in mind, you might be a little frustrated by the lengthy video introductions. And the lab book, which is generally well-laid-out, presents URLs in an all-caps font that makes case sensitivity a little unclear. However, for beginners who require a thorough grounding in the application development process and the Cold Fusion development environment, Skill Building with Cold Fusion provides an excellent overview and practical introduction. *

— by Cindi Drennan

AT A GLANCE...

SKILL BUILDING WITH COLD FUSION

Price: TBA

Pros: Great beginner's overview, thorough tutorials with animations, lab and quizzes.

Cons: Boring American accents

Manufacturer: Allaire

Web: <http://alive.allaire.com>

Rating: ★★★★☆

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the net...**

**take a
bigger
byte!**

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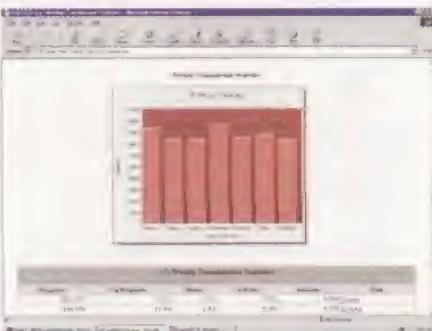
If you're maintaining a Web site for anything resembling a commercial reason, then it's extremely likely you'll have more than a passing interest in the way people use your site. Does anyone actually bother reading that ten-page company newsletter you toil over every month, or do they just skip straight to the product information area of your site? The only way you'll ever know the answer to this question, along with many others just like it, is if you get hold of some statistics analysis software.

One such package is Funnel Web Professional 3, the new version of the popular stats package from Melbourne's Active Concepts. Funnel Web imports your server log files (up to 256 of them at once!) then generates a series of reports, all conveniently presented in html format with attractive graphs, charts and tables displaying your site's usage patterns.

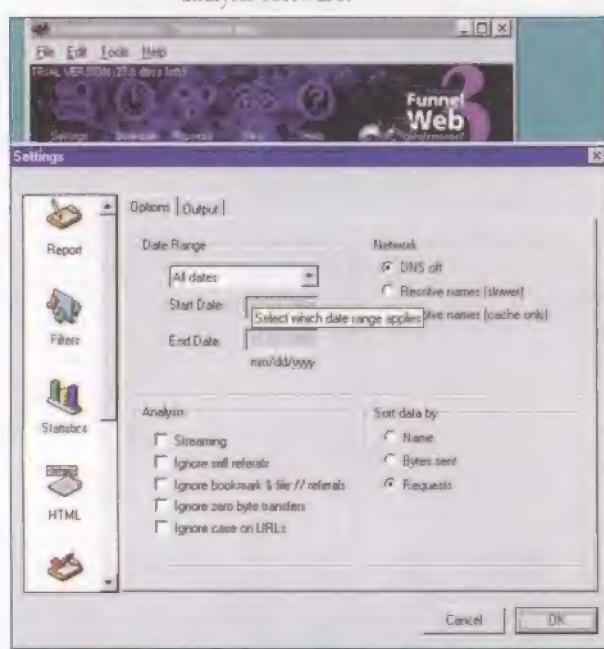
Low-end users

While Funnel Web has none of the really advanced data-mining options of a high-end package such as net. Analysis or HitList, it's perfectly suited to the low-to-medium-scale Web operation, where drilling right down to the base level of your users' data is impractical and unnecessary. Funnel Web comes with a series of built-in reports, such as visits per day, visits per month, page impressions per day or per month, referring URLs, search engine hits and querystrings, as well as error pages and directory path analysis, giving you a general overview of the way your site is being used. This is all extremely useful information; however as all the reports are more or less pre-programmed, there's really no way to design them specifically for your own needs and no way to drill down into the data once the report has been generated. For example, Funnel Web will tell you that 500 people hit a particular nonexistent page on your site last week, and consequently received a 404 File Not Found error.

However it won't tell you that 490 of these requests came from a broken link somewhere on your own site, so you may never notice the source of your problem.



▲ Recording data about your site is no problem.



▲ Funnel Web 3 makes boring company reports look interesting...

Statistics

Every time someone requests a document from your Web site, a detailed line is written to your server's log file. If you can get access to this log file then you're in a position to assess how well your site's working: How many people are visiting the site? How long are they staying there? Which parts of the site are most popular? Where are your visitors coming from? All of this information becomes readily available as soon as you have a decent statistical analysis package.



▲ Clear, easy-on-the-eye, visual graphics are important.

then Funnel Web does the rest. It even recognises your server log format and imports the data accordingly. Indeed, Active Concepts claim that their package can recognise any existing Web server log format — we tried logs from Apache on UNIX as well as IIS Extended and W3C Extended formats on NT and it successfully merged all three without pausing to take a breath. And at \$499, this makes Funnel Web worth every cent. ♦

— by Bo Daley

AT A GLANCE...

FUNNEL WEB PROFESSIONAL 3

Price: \$499 RRP

Pros: Simple, easy-to-use stats package

Cons: A little restrictive

Manufacturer: Active Concepts

Where: <http://www.activeconcepts.com>

Rating: ★★★★☆

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Available from Harvey Norman, Dick Smith Electronics, Electronics Boutique, selected Myer/Grace Bros. stores and other leading computer resellers.

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ORACLE 576

launch pad

this month

NEW OZ SITES

Lasseters Online

<http://www.lasseters.com.au/>
The Northern Territory's most famous casino (as in, its only casino) has made its first foray into the world of online gambling. Lasseters online gives you access to all the good stuff: blackjack, roulette, sicbo and poker machines. You can learn to play, play for free, and even have a dangerous burl on some of the one cent games (outrageous!!). Then head to a dictionary and try and work out what the hell sicbo is. Unfortunately it's still licence-pending, which means that unless the NT gambling board think it's a good idea, you can kiss this online money squandering scheme goodbye sometime soon. Is that

good or bad? You can be the judge of that.

Verdict: Nothing like a rousing game of sicbo to get your blood pumping! —NH
Networth: ★★

Semper Mac

<http://www.sempermac.com/>
Mac fever is back, courtesy of some intelligent marketing decisions by the big Apple, and Australia is about to get its first local Macintosh e-zine. *Semper Mac* will cover Mac-related-news, downloads and general information. It will also cover Macintosh users on both a consumer and professional level. Word has it that Apple has given its support to the e-zine, which should be a healthy shot-in-the-arm for the already impressive fledgling site.

Verdict: Chock-full of Maccy-goodness. —NH

Networth: ★★★★

ATOassist

<http://www.ato.gov.au/>
Revamped, redesigned and relaunched. You may have thought the old Australian Tax Office site was the place to be, but wait until you get a load of ATOassist. One of the major changes has been the inclusion of the ATO's tax technical database, an archive of all tax-related legislation, rulings, determinations and case law. This was previously only available internally at the ATO, and is now available to taxpayers for the first time. Basically, this means the site can be used for 24-hour tax support — so there's no excuse for late returns!

Verdict: Now where's my 10BA exemption notice? —NH

Networth: ★★★★

ATOassist

welcome to the

australian taxation office

we manage and shape the tax and superannuation systems, which support and fund services for all australians.

please click on the heading which best describes you:

tax practitioner

business

individual

Want to know more about Australian taxation? Or what about that late return?

New Oz Sites

The latest Australian Web sites

New World Sites

Internationally cool

Oz Music

It's bigger and brighter than ever before!

Survivalists

If we could only skip the year 1999

Readers' sites

Your personal home pages and free online resources

Miscellaneous

Planet Half-Life, Web Dolls and the Drudge Report?



internet.com welcomes your submissions. If you've seen a net site recently that you think others should know about, send us a review, using this rating system. The best review each month receives a Jolt Pack worth \$100 including a Jolt mouse pad, a six pack of Jolt and a Jolt sports bag. Submissions should be posted to launchpad@la.com.au

REVIEWERS

| | |
|----|-----------------|
| KC | Kate Crawford |
| NH | Nic Healey |
| CM | Craig Mathieson |
| JT | Jacinta Thorler |
| SR | Stuart Ridley |
| JW | Julian Wrigley |

RATING SYSTEM

★★★★★ Why bother? A waste of space

★★★★★ Can't blame them for trying...can you?

★★★★★ Hmmm...worth a look

★★★★★ An essential experience

★★★★★ Scorching!

The screenshot shows the homepage of e.m enterprise market. At the top right is a circular badge with the word "BEST" and "AUSTRALIAN SITE OF THE MONTH". The main header "e.m enterprise market" is in blue and yellow. Below it is a large "Welcome" message. On the left, there's a sidebar with links like "Stop press", "Items of interest", "e.m community", and "Contact us". The main content area has a sidebar titled "Items of interest" with links to "Capital market for non-listed businesses", "Guide to capital raising", "Electronic business plan", "Guide to investing", "How do I browse for businesses?", "About advisers", "About sponsors", "The Enterprise Forum - 14 videos", "Latest e.m newsletter", and "Back issues". A "Latest Updates" section below it lists "e.m community".

AUSTRALIAN SITE OF THE MONTH: EDITOR'S CHOICE

e.m: The ASX enterprise market
<http://www.em.ask.com.au/>

The innovative online e.m capital market has been around for about a year now, bringing together companies, advisers and potential investors to help emerging businesses raise capital for their ventures. In honour of its first birthday, the e.m site has been given a massive overhaul - graphically, structurally and in terms of content. The site's new features include an email bulletin board and an e.m community section, which has a list of links to the sites of major e.m contributors. There are also some additional add-ons planned for the public section, including an adviser search facility, making this the ideal site for anyone who might consider themselves a potential investor.

Verdict: Lucrative. —KC
Networth: ★★★★

Playground

<http://www.abc.net.au/children/>
It's rare to find a kids' Web site that manages to be fun and still avoids patronising its clientele. But that's what the ABC is good at really, as evidenced by Auntie's incredible stable of top quality local and international childrens' TV shows. The Playground features all the favourite characters from the ABC — The Ferals, Bananas in Pyjamas and even the crew from Magic Mountains — in audio and graphics files, as well as a host of online games to keep the kids interested. More importantly, there's a Grown Ups section that lets parents have

a look at the philosophy and content of the site keeping their children engaged online.

Verdict: Superb. —NH
Networth: ★★★★

NSW Police — Far South Coast Online

<http://www.police.nsw.gov.au/farsouthcoastiac/>
The thin blue Web site of the far South Coast. The site is basically designed to give a friendly online face to the police force that run the Local Area Command of the South Coast. Whether it succeeds or not is questionable. I found the interface a bit quickly hurried together,

and I couldn't help but get the idea that the whole site has just been tacked on to the Police Web site as an afterthought. Shame, it could have been quite interesting.

Verdict: PC Plod online. —NH
Networth: ★★★

Shop @ the Yellow Pages site

<http://www.yellowpages.com.au/shop/shop.html>
Although Shop is only a small part of the overall Yellow Pages site, it's probably one of the more useful. Divided into categories such as Computer Hardware, Food, Wine and the like, this is a metadirectory of Australian shopping sites.

Although there are no ratings as to the quality of the produce and service, this is a good solid starting point for anyone who wants to shop online.

Verdict: Helpful. —NH
Networth: ★★★

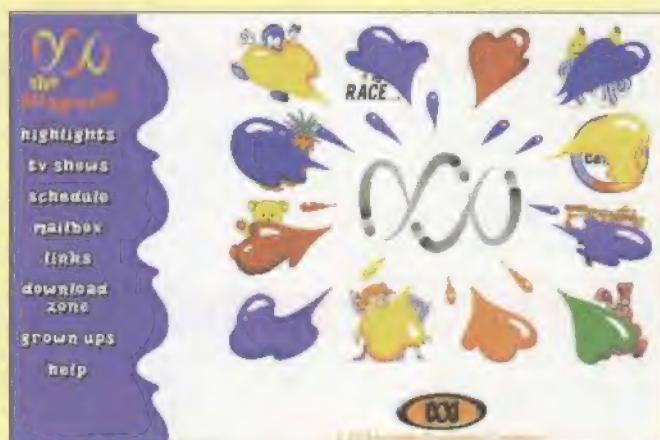
Mims catalogue — the Network has recently partnered with Micromedex in the US to provide an even larger archive of medical information for the Australian professional. This includes an excellent search engine to make sure that the information you're seeking is both timely and actually what you were looking for.

Verdict: Download two and email me in the morning. —NH
Networth: ★★★★

1999 Australian Open

<http://www.auopen.org/>
Tennis, I think. My grasp of the sporting lexicon is perhaps a little less than some. But whatever sport it is, I can only guess that there's a lot of money involved, for this site is very well-designed and obviously cost a pretty penny. Perhaps the most impressive feature is the SlamCam, a robotic camera controlled via browser that lets you take a picture of the game or the surrounding Melbourne Park. Not exactly the most useful thing, but damn cool nonetheless. There's also the usual news, fan information and a regularly updated Java scoreboard.

Verdict: Maybe cricket? —NH
Networth: ★★★



Auntie's cyber playground for connected kids...


 launch pad

Rottnest Island
<http://www.rottnest.wa.gov.au/>

OK, so it's not the tourist destination with the prettiest name, but it does have the prettiest Web site. I am thoroughly stunned by how well designed the Rottnest site is. The colour scheme works, the frames seem functional and the information is useful and accessible. A special feature that is also a lot of fun is the virtual bike tour of the island (PC only, unfortunately). Other than that, this is a great site to plan a holiday (assuming you're going to Rottnest, otherwise you'll be out of luck), with all the accommodation and travel information you could want.

Verdict: Home of cute marsupials. —NH
Networth: ★★★★☆

Australia's National Capital
<http://www.canberratourism.com.au/>

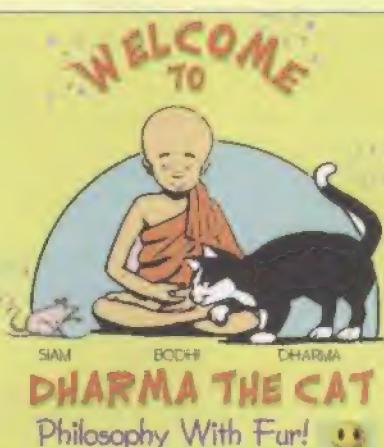
When you compare this site to the Rottnest one you realise why people mainly go to Canberra to work. Actually, I think people are more likely to leave Canberra than visit there, but hell, every city and town

deserves a chance to feel like people actually think there's something meritorious enough about it that people should spent hard earned cash and time visiting them. I suppose if you like Australian political history then Canberra would be great. Hell, bring a bus group and re-enact the Whitlam dismissal on the front steps of old Parliament house. But the desperate attempt of this site to make people believe that you could go to Canberra for its wineries and wild nightlife is just sad.

Verdict: Errr...no. —NH
Networth: ★★

Dharma the Cat
<http://www.dharmathe.cat.com/>

"Philosophy with fur!" Dharma is the coolest cat to grace a cartoon in a long time, and his site is loaded with humorous homages to Buddhist philosophy. Drawn by the dexterous David Lourie, the cartoons feature Dharma, his Master (or is that the other way around?) Bodhi and a little mouse called Siam. Together, the three provide an interesting look at



Humorous antics inspired from Buddha above...

Wine Planet
<http://www.wineplanet.com.au/>

Coming in for landing! Houston, we have touchdown on Wine Planet! Of course, you can never go back for fear of RBT, but life on Wine Planet is sweet, so who cares? More than just an online wine shop, Wine Planet is a way of life. The site is just full of wine reviews and commentary, plus plenty of wine-related things, such as books or upcoming TV programs. Wine Planet is also divided up into wine styles and regions for the purposes of shopping, so this is definitely a site for the serious connoisseur, and not someone whose grape-savvy runs to red, white, cardboard.

Verdict: Distinctive. —NH **Networth:** ★★★★☆

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theWineLoversClub

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WINNER

Congratulations Mr Searlant

Mr Searlant of Sydney is the lucky winner of our "Win 1000 Orange" 1990. He did this simply by being a Wine Lovers Club member and buying wine via the Wine Planet site. The panelled him for our "Win 1000 Orange" competition and he was then lucky enough to be drawn as the winner. This is one Wine Lover who's going to have a very merry Christmas.

Join our wine discussion

Take the time to share your wine experiences with the WineLoversClub. It's one of the best ways to learn something new. Not only can knowledge and fun also be a lot of fun. It doesn't matter if you're a novice or an expert, you are invited to post your tasting notes, and debate current issues. Oh, and don't be surprised if you see some notes posted by well-known wine industry figures and wine critics.

James Halliday Recommends

Taste a look at what Australia's best known wine critic has been recommending this month.

contemporary Buddhist thought. Aside from the cartoons themselves, the site is well-designed, and extremely easy to navigate.

Verdict: Web site satori. —NH

Networth: ★★★★☆

The Piercing Urge
<http://www.thepiercingurge.com.au/>

Maybe body piercing isn't on everyone's 'must do' list just yet, but there are more than enough people who insist on having metal threaded through their bodies to make it

serious business. And the Piercing Urge certainly does take it seriously. The site gives you the lowdown on the different types of common piercing, discussing frankly the procedures and potential risks involved. The site is also designed to plug the Urge's services and features shop tours for both the Melbourne and Sydney branches of this well-known piercing studio.

Verdict: What can I say? Nothing, my tongue's still swollen. —NH

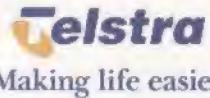
Networth: ★★★★☆

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Not Dilbert

<http://www.monkey.org/~pheezy/lt/xd>

Be honest: how many times have you actually experienced a full ROFL experience after looking at Dilbert? I mean really, really cracked yourself stupid at that dork's wet one liners. Well, the backlash has started. Unfortunately, this collection of alternative Dilbert strips fails to elevate itself from the tedious mire of crappy toilet humour and obnoxious dick jokes. I bet you can do better than this pissy effort: simply photocopy or scan your favourite Dilbert moments, erase the nerd-humour text and write your own comic strip.

Verdict: "yawn" —SR

Networth: ★★★★


Dogs R Us

<http://www.dogsrus.com.au>

This is the online face of the well-respected Bark Busters service. As long as people out there insist on buying dogs, people will need the services of Bark Busters. Bark Busters is a dog training franchise that visits you to help make sure that your brainless four-legged friend can at least understand basic commands even if it can't comprehend its own motor skills. The site offers more information on choosing a breed for your situation, as well as a list of kennel clubs in your area, generally doggy tips and even a fairly cute little cartoon updated weekly. Of course, the best advice anyone can give a dog owner is to buy a cat instead.

Verdict: No really. Buy a cat. —NH

Networth: ★★★★

NEW WORLD SITES

Monkey Spankers

<http://www.monkeyspankers.com>

I know you probably get loads of unsolicited email advertising the very latest in digital stimulation (hell, I do and I have NO idea what I do to deserve it!) especially dodgy letters urging you to hotfinger-it over to some slick new porny pictorial. Or maybe you've got friends like mine who get off on circulating lists of their favourite late-night haunts. Well, with a quick flick of the wrist (and a bit of a jab with the old index) you can shoot something straight back at them: send them this teasingly delicious-sounding but completely useless URL. Ha! No more monkey business!

Verdict: It ain't brand spanking new... —SR

Networth: ★★★★★

Activists

<http://www.active.org.au>

Subtitled "Events and projects for social change 101," Active is an excellent jump-off point for anyone interested in pursuing environmentally-aware and community-positive interests. After all, what can be more interesting than your freedom and health? This Sydney-based site covers just about every stimulating talk, action, festival, meeting, film and gig worth getting involved in around the city. You'll find a lively

discussion group in the daily email list and a handy calendar to keep you posted on the latest happenings. Keen for more? "Active-Sydney is more than a subversive newspaper or a community bulletin board. It aims to be a meeting place, a hub of active information where a whole variety of social change movements connect."

Verdict: "Make the world a better, smilier place". —SR

Networth: ★★★★★


Magical Blend: I Ching

<http://www.magicalblend.com/IChing.html>

Should I think about a new job? Maybe redesign the layout of my house? Listing the pros and cons can only get me so far, and sometimes logic alone fails to deliver an answer. At these times I like to play a little game (who doesn't?) and seek inspiration from the I Ching (the Book of Changes). This insightful tool, a favourite of Confucius,

Albert Einstein and Bob Dylan, has been given a healthy facelift online thanks to the deeply thoughtful folk

at Magical Blend magazine. While thinking about a new work environment, I entered a peaceful cave and discovered: "The general situation is one of easy, natural progress..."

Verdict: Ancient oracle in millions of new colours. —SR

Networth: ★★★★★

Turbulence

<http://www.turbulence.org/>

Hold tight: we're in for a breathtaking (and sometimes disturbing) ride through some very heavy Turbulence. We're up so high we're giddy with freedom (or maybe it's the thin oxygen), floating on clouds of surreal beauty. Explore a provocative range of digital art creations, such as "The Switch" — the quasi-scientific rewiring of home automation products. Especially interesting last time we visited was Friederike Paetzold's I-Section, which he described as an exploration of "the aesthetics of dissection, the emotional resonance associated with internal organs and what is left when the body has been taken apart." Yes...

Verdict: You might not need another distraction in your life, but you will benefit from an expanded mind after a session of turbulence. —SR

Networth: ★★★★★

Massage 3

<http://www.nomadnet.org/massage3>

Aah... nothing like a good strong brain massage every now and again!

Wigstock

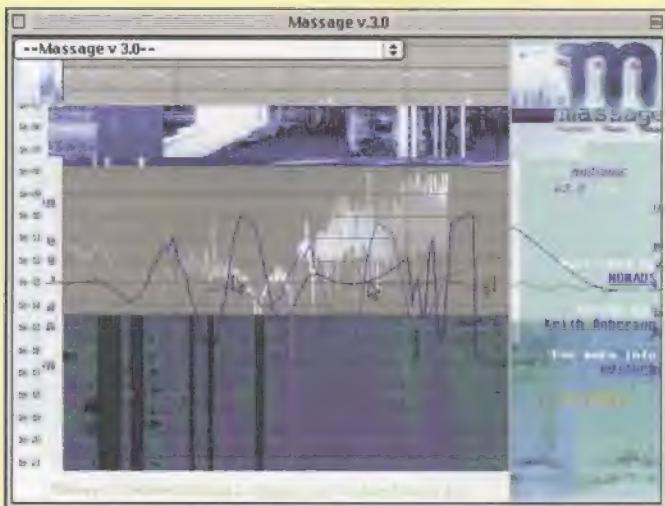
<http://www.wigstock.nu>

Suffering post-Mardi Gras (<http://www.mardigras.com.au>) comedown and not too keen to head down the straight and narrow of corporate (or student) life? Well why not kick up your 7" heels once again and ruffle some feathers down at the positively glamorous Wigstock festival in New York. A drag event of the highest order, the annual outing sees tens of thousands of tweaked and teased torsos go wild in the heart of the Big Apple. The parties might be over, but if you load the Mardi Gras and Wigstock pages together with the right music pumping behind you, you can still catch plenty of cuties.

Verdict: Wigged out and proud. —SR

Networth: ★★★★★

The image shows a screenshot of the Wigstock website. At the top left is the Virgin Cola logo. To the right is a large yellow title 'WIGSTOCK'. Below the title is a stylized illustration of a person with blonde hair and flowers, surrounded by flowers. To the left of the illustration are several menu links: 'WHAT'S WIGSTOCK?', 'HISTORY', 'PHOTOS', 'SPONSORSHIP', and 'TICKETS'. The background features a green and yellow patterned design.



Require some mental stimulation?

Massage 3 is a stunning Canadian e-zine that captures and distils the spirit of ecstasy in street performance, art, media, culture and funky-ass music. Check out Radio Bicyclette for a taster: a bizarre machine that rolled around the streets of Montreal in late 1998 teaching those it passed by about past lives, loves and... erm, pirate radio. Tune in for the history of clandestine radio and the role it played during the Soviet invasion of Czechoslovakia. Designers might be particularly keen to read the review of "Il Futurismo: Soundtrack to a font" which harks back to the launch of Italian Futurism in the pages of *Le Figaro*, while exploring new forms from the P22 Type Foundry. Personal favourite? "Pirate Radio Musak". Ever fancy catching a live performance beamed to your portable radio in a supermarket? You will now!

Verdict: Imagine the future. —SR
Networth: ★★★★

Icepick

<http://www.icepick.com>

Some people take the wired-fetish beyond the bounds of simple home entertainment and too far into the exhibitionist zone, like skin flashin' college students and mid-suburban geeks with a few too many Webcams. Mr Icepick loves his home so much he wants you to share the experience via eight carefully placed Webcams that offer mildly interesting insights into the use (and abuse) of common household items, such as a doorbell, fridge and "gosh" a rubbish bin. Most interesting perhaps (and that's a BIG perhaps) is the camera that attempts to capture the point of view

of Blackie the kitten as it trails after a much more couch-wise domestic cat (a scene that seems to focus exclusively on Blackie's food bowl). After a frenzy of clicking, all I was left with was a sad, empty feeling (and a weird craving for cat food). Poor kitty, it must suck having so many geeks buggin' you all the time.

Verdict: Enough! I don't care when Mr Icepick last went to the toilet! —SR

Networth: ★★

Lenny Walkabout

<http://www.shockrave.com/content/ezone/lennyworld/interstitial.html>

Got a mate called Lenny? I bloody well don't. Over at Macromedia's



Coldcut Vjamm

<http://www.ninjatune.net/coldcut/vjamm/index.html>

The revolution will be televised! You heard right beatbreaks: audiovisual Djing has arrived. And it's so easy, even your too-mellow flatmate ripped to the gills can cut up a live video-jam using the cheap but sophisticated technology available at this site. UK techno crew Coldcut has released a PC version of its Vjamm audiovisual software, offering a taste of sample-driven video jamming free. Of course, if you want to load your own sounds and vids you can buy a copy of the full version direct from the Ninja Tune site too. Bonus Coldcut beats and pieces are also available free online.

Verdict: Kick in the Vjamms! —SR
Networth: ★★★★★

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Bubblehead Magazine<http://cygnus.uwa.edu.au/~lavida/bh/>

Perth has always been an isolated centre of Australian music, both geographically and stylistically. Up until this decade its most promising acts have always moved east or fled overseas. And while JJJ and increased touring by major local bands have lessened the distance, it still relies on an enthusiastic local scene. *Bubblehead* magazine is a good representation. The design is strong, with a strong sense of community involvement. The reviews and listings are bang up to date, which even manages to overcome the mixed standard of the critical writing.

Verdict: Go West! —CM **Networth:** ★★★★

The screenshot shows the homepage of Bubblehead Magazine. At the top is a large, colorful cartoon illustration of a character with a large head and a small body, wearing a hat and holding a guitar. To the right of the illustration, the word "new look" is written in a stylized font. Below the illustration, the title "bubblehead" is written in a large, lowercase, bubbly font, followed by "Perth's Internet Music Magazine". Below the title, it says "Issue 120 - January 21, 1999". On the left side, there is a "Record Reviews" section with a list of artists: "various artists Black Paradigm". In the center, there is a "Live Reviews" section with a list of events: "Bumfuzz Down Under, PC Theg, Shlöff New Year's Eve the Chevelles, the Fretters, Supercope January 10 Gagouze CD launch January 13 Halogen, Parked January 16 3 Orange Whips, Autocat January 17". On the right side, there is a "Movie Reviews" section with a list of films: "No looking back directed by Edward B the Tango Lesson directed by Sally Porte the cartoons of Tex Willeraker".

Shockwave the yanks have made a balls-up of a favourite Aussie character — the bushie. Years ago they got stuck into Lenny and made him wander about in daks which kept on falling off in an adventure entitled *Lenny Loosejocks*. And now, in his latest adventure, the little fella has been forced to walkabout for the enjoyment of pasty-faced city slickers in the USofA. Leave the poor bastard alone I say! But if you can't, at least give him a fair go eh? As you guide Lenny through Pullyapantsup (who comes up with these names?) you'll discover all kinds of stuff, and scratch your head over a couple of puzzles. You might win something, if you're interested in taking a geeze.

Verdict: Free Lenny! —SR
Networth: ★★★★

OZ MUSIC**Australian Music****World Wide Web Site**<http://www.amws.com.au/>

A key player in the music industry, if occasionally a thorn in its side, Immedia compiles the extremely valuable Australian Music Industry Directory, a huge compendium of contact details. The Sydney-based company's site reflects its long-term support — even evangelism — of the net, with a host of links to various areas of the Australian sound. Included are links to bands, listings of gigs and events, several interesting online columns and charts. There's also an older version of their directory uploaded (Jan '97), which can be a help even though



Boy, can these guys rock! Or, pop? Regurgitator.

details change so quickly

Verdict: Good information, simple presentation. —CM
Networth: ★★★

Nic's Regurgitator Page<http://www.geocities.com/SunsetStrip/Towers/2096/regurgitator.htm>

Postmodern reflexive pop or just wildly intelligent rock band? Regurgitator, another graduate of Brisbane's intensely creative sonic rendezvous, are all this and much (often mystifying) more. This unofficial site doesn't capture the bizarre driftnet of ideas they combine — everything from 80s pop to an obsession with bodily functions — but it does give those who've already caught up on the records some much needed additional insight. The bio and pics are all present, but the highlights are the collected lyrics. Confused about what Quan's singing on "I (The Song Formerly Known As)", it's here: "I don't go to concerts baby/Music's always up too loud/Cigarettes and alcohol get up my arse/I lose you in the crowd..."

Verdict: Get some Northern Exposure. —CM
Networth: ★★★★

Cover Bands<http://www.amws.com.au/covers/>

The tribute act circuit is a depressing but necessary evil on the Australian music scene. It's a sad fact that a lot of people would rather pay to hear a band of competent musicians pretend to be someone else (who is most probably old,

retired or just plain dead) instead of playing original compositions. That we're a world leader in this field — indeed, we export tribute and cover bands — might say something about cultural cringe. This basic site is of use mainly to see how outlandish it's getting. I mean, April Sun — The Dragon Show? Three Pink Floyd combos (The Australian Pink Floyd Show, Think Pink and Think Floyd)? When I worked at a Sydney street paper I used to slip in fake references to Canton Ghosts, the Japan/David Sylvian Tribute Show. Sadly, no-one has taken up the challenge.

Verdict: Three Pink Floyd acts enter the ring, only one leaves... —CM
Networth: ★★★

The Push<http://www.thepush.asn.au/>

A Victorian youth-orientated organisation, The Push, was founded by the Office of Youth Affairs to not only provide entertainment for people under the age of 18, but also to educate them about how to bring their own plans to fruition. Oh yes, and they do all that without using alcohol or drugs. Which are bad. Very bad. But the preaching takes a backseat to an astute group of people who've built an influential all-ages circuit in Melbourne. Their site is efficient and salted with helpful detail, from demos you can download of local acts to plenty of listings and contact details.

Verdict: The kids are more than alright. —CM
Networth: ★★★★

Tina Arena Main Fan Page

<http://www.starjump.com/tina/>
Currently in the US, where she is being groomed as the successor to Mariah Carey by that diva's former husband and current record company boss, Tommy Mottola. Tina Arena is proof that not even *Young Talent Time* and a dodgy disco-pop career ("I Need Your Body") can stop an ambitious young woman. This fan page, while a little out of date, has the usual mix of Tina pics and data from her grown-up phase. Strangely, nothing about her intense dislike for one Ms Natalie Imbruglia has made it online.

Verdict: This site needs some body.
—CM

Networth: ★★☆☆☆

Powderfinger Official Web Site

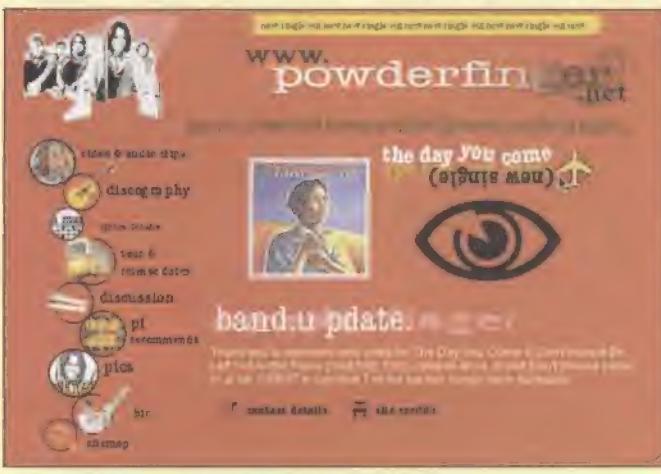
<http://www.powderfinger.net/>
Blessed with a sense of musical grace that is rare in our pub rock-beviled land and a rather impressive third album in Internationalist, Brisbane's Powderfinger have become one of the key acts of

Australia's alternarock generation. Their official site is a highlight as well — dig that rich red background — with plenty of updates, lyrics, pics and anything else the Powderfinger fan could want, all elegantly presented. If you need more, then head for the discussion section, where followers from around the country post notes on recent (*Big Day Out*) shows, wonder what the tune "DAF" is about ("D A F is the chord progression," observes the musically astute Daniel) and slag off young indie minstrel Ben Lee.

Verdict: Let me tell you my theory about "DAF"... —CM
Networth: ★★★★☆

Cold Chisel

<http://www.coldchisel.com.au/>
As Johnny Thunders once sang, "You can't throw your arms around a memory," but in the case of famous old rock bands, you can sure charge a lot of money for it. A tough-as-guts boogie rock band who were blessed with an astutely observant songwriter (keyboardist

**silverchair**

<http://www.chairpage.com/>

Now that they've escaped from the confines of being teenage prodigies — silverchair are no longer the youngest band in the world by any stretch — and most countries have decided that grunge is dead and that pop rules the roost, silverchair have been able to get by in peace. This might explain why their new album, *Neon Ballroom*, is their best yet. This official page, which was sanctioned after the band were impressed by a fan's efforts, is amazingly up-to-date. 48 hours after a video shoot in Sydney's Martin Place for the tempestuous new single "Anthem For The Year 2000," this site had a report and pics. Fans can't ask for a lot more.

Verdict: A must for fans and those becoming interested. —CM
Networth: ★★★★☆

SILVERCHAIR

PHOTO SPECIAL



Don Walker, not Jimmy "Barnesy!" Barnes, by the way), Cold Chisel partially caught the mood of the times in the early 80s. In the late 90s their reformation was a decent pitch for the nostalgia market (although it's fair to ask how nostalgic is a band MMM are still flogging incessantly). Their new site covers

the new record and the major spate of touring. Although despite having The Lyrics, The Records, The Photos, The Posters, etc. it doesn't have The Fights, something Cold Chisel are renowned for.

Verdict: Yes, the drummer recently nuted Barnesy after a gig. —CM
Networth: ★★★★☆

Web Designer



Grey Interactive, as the name suggests, is the interactive division of Grey Advertising. We see interactive communication as a medium rather than a technological toy, and right now our Canberra office is seeking a web designer who shares the same philosophy. Our clients' sites need to stand out from the crowd; you will have the skills to make this happen, adapting easily to different programs and computer platforms, and being just as happy doing some of the grunt as the creation. Remuneration is in the range of \$40,000 pa.

Applications by fax or e-mail to: Allison Hornery (02) 6295 1098

a.hornery@canb.greyadv.com.au

Hotel-Motel Jebediah<http://odyssey.apana.org.au/~craig/>

The official homepage dedicated to the one and only hit band, Jebediah. Now with the surge of new music talent from Western Australia, Jebediah have produced numerous hits, even scoring four nominated tracks in Triple J's Hottest 100. The man behind the site, Craig Harman has formulated a site allowing fans and followers easy viewing on the latest goings and happenings with the band's co-operation. Sidebar icons simply take you to your point of interest, either being discography, gallery pics or published interviews. What makes Jeb's site so interesting compared with other band sites, is the time and energy spent on updating the information regularly, which is extremely important for those diehard fans.

Verdict: Craig, way to go man, we really appreciate your loyalty. —JW

Networth: ★★★★

Hotel-Motel Jebediah**The JeBeDiAh Homepage**

'In our heat we had our fingers crossed like mad that we could get through, we just wanted to play at Planer' — Kevin Mitchell



The only Jebediah page made with the band's support!
Page Maintained by Craig Harman

You can also e-mail the band here!
This page was last updated on Monday, February 1, 1999.

Please [SignView](#) My Guest Book [Add Active Counter](#)

LATEST NEWS**Webcast of Jebs @ BDO**

This is just to let you know that the Jebediah performance at the Melbourne BDO is to be webcast (streaming of course) on the following websites. It will also be

NEW SITE UPDATES

- 1/2: Added [review](#) of Jebediah at the Big Day Out
- 2/7: Updated the news
- 5/1: The [new site](#) had needed an update for ages, the new

You Am I Central<http://www.zip.com.au/~danny>

Just because they've spent the last three years engaged in a vicious, never-ending cycle of American and European touring in a bid for world domination, You Am I have been somewhat forgotten in this country as the likes of Spiderbait, Powderfinger and Silverchair have racked up the big sales and impudent newcomers like Grinspoon and The Living End have taken all the glory. A shame. For frontman Tim Rogers is still the best songwriter we have in this country — and the best interview. The articles reprinted here prove that Rogers views everything in life as a performance, and boy, was this guy born to perform. There's plenty to read and see, with regular updates, but

little captures the magic of the band in their prime: electric, unfettered and inspirational.

Verdict: You know, "Berlin Chair" is still a work of genius. —CM

Networth: ★★★★

little captures the magic of the band in their prime: electric, unfettered and inspirational. Dan — who compiled this site — remains a true believer: "I have been a fan of Olivia's since I was eight years old. Unlike other fans of my age, it wasn't Grease which hooked me. My mother bought me my first Olivia Newton-John album at, where else, a garage sale..." Dan's site is a showcase of a dedicated superfan, complete with uproar over her

American label dropping her (who knew?) and a slew of 20-year-old shots that still warm his heart.

Verdict: For those who truly keep the faith. —CM

Networth: ★★★



Boo! TISM.

WWW. TISM. WANKER. COM<http://www.tism.wanker.com/>

TISM have been poking fun at the lives of not very quiet desperation young Australians lead for a good 15 years now — which goes to show that when you're on a good thing — especially a financial one — stick to it. Their site (the title is shared with their latest album, a neat retread of their usual electro boogie and sarcasm) is a mixture of the genuine — yes, they'll gladly take your money for merchandise — and the gleefully abusive — yes, they'll dismember anyone who writes a letter to them — with a quality veneer. Perversely, as TISM always are, a lot of far more serious bands and their fans could learn from this site in terms of doing the job properly.

Verdict: Can I have a TISM balaclava, please? —CM

Networth: ★★★★

Spiderbait Heaven<http://www.angelfire.com/ak/Atkin/>

Blessed with a brain for pop hooks and a punk rock baptism of fire from when they left home, Spiderbait have evolved into one of the most acclaimed, occasionally mysterious and often wildly entertaining bands in modern Australian rock. This site goes a good way to decoding some of their stranger tenets: the lyrics are here, for a start, which means you can see how Janet writes songs so knowing but simple, or how Kram has redneck Australia completely sussed. Best of all is Janet's Guide to Festival Etiquette: "I also believe in a checklist of recommended equip-

CONTENTS

- Part 1: Young Man's Blues (1991)
- Part 2: The Story of a Life in Pictures (1992)
- Part 3: The Story of a Heart (1993)
- Part 4: Transformation (1996)
- Part 5: The Story of a Century (1997)
- Part 6: What It Is To Be Human

Young Man's Blues

The older members of the original You Am I band sat down with the Australian Journal "Smash" Magazine, issue May 1991 in Perth, Western Australia and recorded a series of video clips. The video clips were then edited into a series of short clips. These clips were then used in the original You Am I album. The original You Am I band had a personal affection for Jenny Draper, who plays guitar and drums. She was born in 19 and went on to become a well-known singer-songwriter. She has since formed her own band, "Gangster".

Hourly, daily, whenever... You I am.



ment: 1) Cattle prod. 2) Colostomy bag and catheter to avoid the toilet queue. 3) Fruit injected with vodka (don't know if anyone's actually stooped to this, but it's a good urban myth)."

Verdict: Where's my colostomy bag? —CM

Networth: ★★★★

Hi-Fi Days

<http://www.opengroup.com/open/au/books/186/186448232X.shtml>

There's not a great history of music journalism in Australia, but a welcome highlight was the 1996 book, *Hi-Fi Days*, by Australia's leading music journalist, Craig Mathieson. Documenting the rise of silverchair, You Am I and Spiderbait (it was modelled on English theatre critic Kenneth Tynan's seminal collection of essays *Show People*, a fact few, if any, critics noticed), it provided a fascinating insight into the mechanics and passion of contemporary rock & roll. Granted, it's now a little out of date, but this site will still sell you one, which should keep you happy until Mathieson's groundbreaking new opus — a history of 90s Australian alternarock — arrives this November.

Verdict: What can I say? They're selling my book. —CM

Networth: ★★★★



Bush Tucker Man Unofficial Home Page



The Bush Tucker Man Page is now Mirrored in [Canada](#) and [Australia](#)

Sue Lowe, of the [Sydney Morning Herald](#) reviewed this page in the article [Web Tucker Man](#), February 27, 1997



Bush Tucker Man

<http://www.ozemail.com.au/~canine/bushtucker/>

At first glance, this site might not look like it belongs in a section on survival. But once you consider what the TV show (and as an extension, this site) is all about — ie. how to survive in the bush — you can easily see why it has been included. This unofficial site has biographical information about the man himself, as well as info on the best of survival autos — the jeep. There are also reviews of Les Hiddins' books on survival, and you can even find out where to get the man's hat.

Verdict: Who needs a bunker? We've got Les! —JT **Networth:** ★★★★

SURVIVALISTS

Rocky Mountain Survival Group

<http://www.artrans.com/rmsg/>

This is definitely the place to go for all your survival needs. The authors provide "a central database of practical, accurate, reliable and interesting news, articles and product information ... regarding self-reliance and survival." Content includes ordinary

survival situations (for instance, you versus the IRS), through to what you should do in a crisis, whether local, country-wide or world-wide. This is a great site that tries to avoid judgement calls, setting out the information you need in a positive way.

Verdict: These people should put out a book. No wait, they have! —JT

Networth: ★★★★★

LifeLink-Planning Guidelines

<http://www.lifelink.com/famplan.htm>

This site explains in simple steps what you need to have on hand and what you need to do when disaster strikes. There are five disasters covered: earthquakes; hurricanes and tornados; winter and thunderstorms; floods and flash floods; and fire. You might think that an earth-

quake is unlikely here in Australia, but just remember Newcastle a few years back. The plans are so easy to follow that going through all of them should only take a few hours.

Verdict: This is part of the American Red Cross planning guidelines, so concise help is just what you'd expect. —JT

Networth: ★★★★

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<http://www.t4c.com.au>

Equipped To Survive<http://www.equipped.com/>

With millennium fever raging about the world and every Tom, Dick and Harry selling survivalist merchandise, this is the sort of site you need. It has lots of "comprehensive independent reviews" of all the stuff you could ever need (as well as a lot of hoopy junk). The site also has lists. Lists of everything you could possibly need — food, medicines, tools and so on — to survive any kind of disaster.

Verdict: The survivalists equivalent to *Choice*. —JT **Networth:** ★★★★



Here you will find comprehensive independent reviews of outdoors gear and survival equipment, as well as survival information, to help you determine the best choices to prepare for anything from a hike in the park to a life threatening emergency or disaster. Preparation is the key to being Equipped To Survive™, be it in an urban, wilderness, marine, or aviation environment. Please note that this is not a "survivalist" site. Equipped To Survive™ is a non-profit, non-commercial endeavor.

Before proceeding, please review the [WARNING & DISCLAIMER](#) about information on this site.

Latest Features, Reviews, News and Information**Casio Shows Off First GPS Watch**

Casio introduced the world's first wristwatch with built-in Global Positioning System (GPS) capability at the January 1999 Consumer Electronics Show. The 5.22 oz. navigator incorporates an 8-channel GPS receiver and provides 600 readings from one lithium battery. Its memory will store 200 coordinates and the

**The File Pile**<http://dnauers.d-n-a.net/dnet1LUU/files.html>

When getting down to real survival, you need to learn a lot of stuff. Just what should you carry on you at all times? How do you build a repeating crossbow? How do you assess a particular threat? Well, the answers to these questions and many more are all on the site. The File Pile discusses British survival situations. So although most of the FAQs are the sort that apply worldwide, those on animal tracking among other things are specifically British and aren't all that relevant to us here.

Verdict: With this site, and only a few sticks, I could build a log cabin. Talk about camping out in style! —JT

Networth: ★★★★

Emergency Food Storage Needs<http://www1.icserv.net/D100001/X10043/lscalc.html>

This page is a simple calculator. You put in how many male and female adults, teenagers and kids, along with how many babies you want to feed. Then the site calculates the quantity and type of food you need to stock up on to last for a year in an emer-

gency survival situation. It also tells you that eating just these things will result in some vitamin deficiencies (A and C). The page is part of a larger site selling, you guessed it, dried food.

Verdict: Why they just don't add in packets of vitamin tablets is beyond me. —JT

Networth: ★★★★

Self Sufficiencyhttp://www.infostream.net/fred/self_sufficiency/

When the world as we know it breaks down, there are going to be a lot of changes. One that people don't often think about is the fact that dentists won't be there to deal with braces, cavities and teeth-pulling. It'll all be up to us. There are lots of sites with medical information for survivalists, but here is one of the few that deal with dentistry as well. Maybe you have your dental hygiene covered, but have you thought about toilets? Or the nuclear contamination of all your stockpiled food? This site deals with all the unpleasant aspects of self-sufficiency.

Verdict: The apocalypse is coming! —JT

Networth: ★★★★

Patriots, Survivalists, and Gun Owners<http://www.netside.com/~lcoble/>

When visiting Frugal's site, patience is a virtue: it takes a long time to download. But with so much information on the site this can be forgiven. In researching survival techniques and pages, Frugal is an expert. To put it simply, everything you could ever think of is on this site, from the basic how-tos, to the more advanced whys and wherefores. Overall though, you might find it easier to read Frugal's words quoted on other sites, because often it's pure chance that the link you click on has what you want.

Verdict: Frugal might be an expert in survival circles, but he could learn a bit more about HTML and site design. —JT

Networth: ★★★★

Basic List for Long Term Survival<http://www.greatdreams.com/basic.htm>

What I really like about almost all survival sites, is that they are easy to understand. One second's meditation on the title of this one will illuminate the content. There are 44 items on the list. It seems to run in order of importance, with "water stored to last at least five days, at one gallon per day per person" the first item. The last item is "lots of good books to read". After all, there are only so many hours you can hunt, cook and sing to keep your spirits up.

Verdict: This list was obviously compiled by a man, with item 34 being "female needs" (35 is nappies). Any woman would have put both much higher. —JT

Networth: ★★★★

Disaster Preparations at Home<http://www.ezonline.com/ditto/texts/prepare.html>

According to this site, many people simply don't believe that the world as we know it can end. They foolishly feel that this life will go on and on. After giving a few examples of how life didn't go on and on for some people over the past few years, the site goes into what kind of things you need to think about in order to survive the unthinkable. The writer states that, initially, his friends and neighbours poked fun at the amount of stuff in his garage, but after he

helped them out time after time, they stopped laughing.

Verdict: Great ideas for someone who's never thought about survival situations before. —JT

Networth: ★★★★

Planning For Survival<http://www.crl.com/~mjr/survive.art1.html>

A lot of survival sites try their best not to look like paranoid separatists dropping out of a comfortable society to go bush bashing. This site isn't one of those. Some of the advice is quite useful, but the section on how many extra people you should plan for gets quite chilling. The nice thing I can say about that section is they suggest you keep your actions low-profile. That way, people without a "positive survival value" won't arrive on your doorstep.

Verdict: The author of this site truly believes it's a jungle out there. —JT

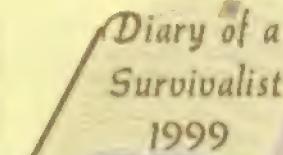
Networth: ★★★★

Captain Dave's Survival Guide<http://www.survival-center.com/>

This site takes a different tack to most survival guides. With cute cartoon characters and charming notes, it tries to make situations (like choosing which weapons you'll need to defend yourself from intruders) as friendly as possible. This is a well-designed site, with loads of information, but the conclusions are just as brutal as some of the other sites.

Verdict: Spend hours here, and you could consider yourself a survival expert (paranoid too). —JT

Networth: ★★★★



Consult Dave's Diary. You may never know what's in store for 1999...

Self sufficiency in the City<http://www.geocities.com/Heartland/Ranch/1216/index.html>

On a more personal note, this is the Sanders family home page. Here you can see all the information from the other sites applied in an everyday



Get Primitive!



Time to escape the tortures of the modern world and return to the old?

situation. The Sanders family goal is to become independent for power, fuel and food in an average American city suburb. They figure that, come the end of the world, it's easier to stay where you are than running for the hills.

Verdict: Nice to see survival information used in an urban setting like Mesa, Arizona. —JT

Networth: ★★★★★

Get Primitive!

<http://www.shelter-systems.com/get-primitive.html>
Wouldn't know how to tan leather even if the tools came up and bit you? No idea how to make fire without matches or a lighter? Then this is your site. Tools, techniques, and computer modelling all combine to form a site that isn't as amateurish as it might at first seem. This is part of the Shelter Systems site, and not surprisingly, they push their products in the instructions. But

they've avoided falling too far into marketing and offered some hints that actually have nothing to do with the stuff they sell.

Verdict: They even have instructions for making flutes! —JT

Networth: ★★★★★

Australian Survivalist On-Line

<http://freeweb.digiweb.com/pages/ausurvivalist/>

Like a lot of things, survivalist information seems to be mostly US-based. Therefore it's nice to come across this Australian site. The information that comes from overseas can normally be used here in Australia, but trying to find local equipment suppliers can be awkward. This site lists a multitude of local sources. Even if there's not one in your area, postage costs from another state are much cheaper than from overseas. Australians are also experts in permaculture, so you would expect an Aussie site to offer

good information on this subject. This one doesn't let you down.

Verdict: Useful and local, what more do you need? —JT

Networth: ★★★★★

Verdict: Depending on how you feel about the likelihood of nuclear war, this site has good info, or it's good for a laugh. —JT

Networth: ★★★★★

Atomic/Nuclear Survival

<http://www.geocities.com/HotSprings/Falls/1984/>

This is the classic survivalist situation. Nuclear bomb goes off. What to do, where to run? It's all covered on this page. To start at the top, the page describes a nuclear blast, radiation and fallout info, and then goes into what you can do about it. There are lots of plans for building shelters (both above and below ground), and stuff on how to shore up a building (against a nuclear blast). Finally there's a nuclear bomb simulator for you to download.

Scavenger One

<http://www.scavengerone.com/>

Not everyone has the money to go out and buy a \$10,000 bunker, a \$5,000 water tank and so on, no matter what they feel about the end of the world. This site shows the way forward for those among us who are survival orientated, but cash poor. In many cases, they show you how to DIY, but in others they simply present a good case showing why doing it yourself will actually cost you more than buying/hiring someone else.

Verdict: Sets its case out well. —JT

Networth: ★★★★★

MrsSurvival.com

<http://www.mrssurvival.com/>

There seems to be a propensity for men to call the shots in survivalist circles. At least, they seem to be the ones doing the Web pages. But as Adam found out, women are needed too. Therefore we have MrsSurvival.com. This site isn't about the correct shade of curtains required in a bunker, or what flowers are both decorative and edible, it's a site for "the practical woman who is preparing for an unknown future". The site is a community site, so it mostly consists of discussions on various topics. These range from hunting, trapping and gun info to canning tips and how prepared women are for any situation.

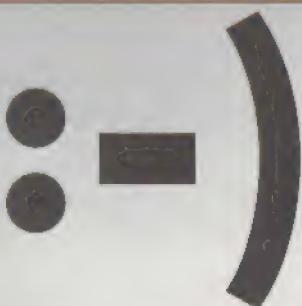
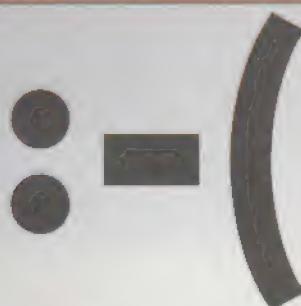
Verdict: If my mother is the average woman, then I'd say women are prepared for anything. You should see the size of her handbag. —JT

Networth: ★★★★★

For Women - By Women
WELCOME!
mrssurvival.com

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readers' sites...

WITH MARTIN ROSE, THE WEB DOCTOR

The best personal home page each month receives a copy of *FrontPage* and *Picture It* from Microsoft. Submissions should be sent to launchpad@ia.com.au

On Top of the World

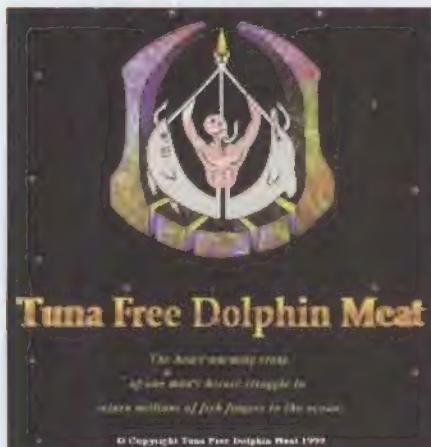
<http://www.geocities.com/Yosemite/Trails/8098>
Strap on those walking boots, truss yourself up in Gore-Tex and follow this wilderness wanderer on a 26-day trek around the stunning Annapurna region of Nepal. But don't even think about going until you've read the trek notes, scanned the equipment list and trawled the links on this valuable and interesting personal travel site.

To improve the site you might try:

- Resizing or repositioning some of your photos so they can be seen in full without having to scroll down the page.
- Either drop the villages page or expand its scope. The content currently displayed here is readily available in other sections.

Verdict: Makes walking to the shops seem a little less daunting.

Networth: ★★★★☆



Tuna Free Dolphin Meat

<http://www.tunafree.com.au>
This eccentric site has very little to do with tuna or dolphins. Then again, it might have everything to do with them... Who can really tell when such quirky humour is at work? Casting an obtuse light on man's surreal presence within an even more surreal animal kingdom, Tuna Free Dolphin Meat manages to both amuse and baffle.

To improve the site you might try:

- Offering a more extensive navigation menu on each page to allow more freedom of movement.
- A more consistent use of tables would improve layout and homogenise the site.

Verdict: Very fishy.

Networth: ★★★

reader's site of the month



Making Heroes

<http://www.techrescue.org>
Created at the steady hand of a Victorian Special Emergency Services volunteer, this instructive, detailed site epitomises selfless Web values. The author, aiming squarely at search and rescue workers, presents exhaustive reference materials, tutorials, images, discussions and links, all in an appropriate no-nonsense format. If you're looking to brush up on the technicalities of vertical, cave, flood, vehicle and urban search and rescue then make this your first stop.

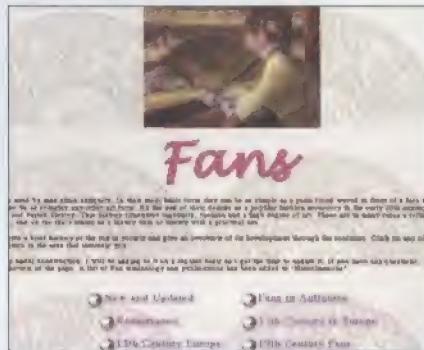


To improve the site you might try:

- Reducing page bulk by dividing sections up and breaking long features into smaller chunks.
- Verdict:** The world feels safer already. **Networth:** ★★★★★

Fanzine

<http://www.magna.com.au/~kalmax/index.html>
If you thought a fan was a motorised cooling device, then you're forgetting the origin of the concept. In which case you'd do well to visit this site, dedicated to the documentation of handheld fans through the ages. Since ancient Egyptian times, the humble fan has passed through myriad incarnations, from bejewelled personal air conditioner to stunning work of art. So why not find out for yourself.



To improve the site you might try:

- Reconsidering the physical dimensions of certain pictures. Some may adversely effect screen layout for low-res viewers.
- More prominent navigation links at the top of the screen would improve the surfing experience.
- If you tone down the fan background graphic it would interfere less with the clarity of overlying text.

Verdict: Cool.

Networth: ★★★

The Ox-Zone

<http://www.geocities.com/TimesSquare/Stadium/5838>

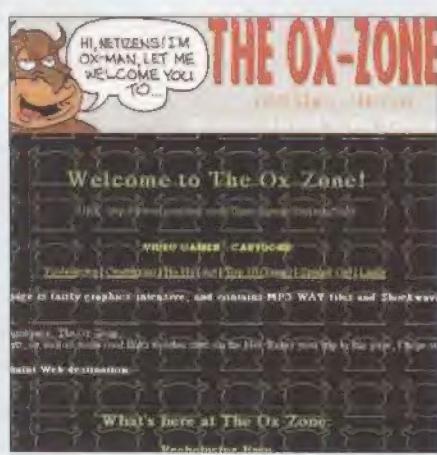
This site may qualify as a historical monument in the world of gamers and cartoon addicts. By paying homage to such animated icons as The Centurions and that old-time favourite platform game Probodector, it amounts at least to a nostalgia trip. The author also uses the site as a platform for his own comic art and humour.

To improve the site you might try:

- Adding navigation links on each page to the other Web site sections, rather than just a link to the main page.
- Experiment with tables to improve page layout.

Verdict: Historically funny.

Networth: ★★★



Planet Half-Life<http://www.planethall-life.com>

If you haven't been playing Half-Life then you've obviously been wasting your time hanging out in parks or watching TV. Half-Life is possibly the best first-person shooter game to hit the market ever, and its incredible blend of superb graphics, storyline and action has hooked many people who thought they were immune to gaming addiction — such as yours truly. Planet Half-Life is one of hundreds of similar sites, but I found it to be a particularly good one, with loads of tips, info and general fun stuff.

Verdict: Check out the "bullet 'n' crowbar" art. —NH

Networth: ★★★★

Half-Life uses a skeletal Animation System for more realistic looking and moving models.

PLANETHALFLIFE

SEASIDE COUNTER

Does Half-Life inspire you to... uhhh... write poetry? Then you may want to check out the Misc. section of the FHL forums, where Magnum has started up a thread dedicated to Half-Life poetry, song parody, and romance novels (yeah right).

-Fragmaster

PIC OF THE DAY

Ahhh... back in the splendor that is Half-Life crowbar & bullet art. "Fairied" by Riped.

HEROLINES

- A Planet Under Siege
- Dawn of a new Planet
- Walter's World
- Waypoint stirrings

Wednesday, January 27

Radium Reviews 11:50 PST Apache

Radium has a multitude of maps reviewed, reviewed and posted for your bragging pleasure. They include:

Got Pic

Alien's Site<http://huizen2.dds.nl/~gin/>

I know Greys are a little 1995, but bookmark this site, give it a year and then call it retro. Actually, the site is complete crap, but it's quite hysterical to see the huge array of famous faked UFO shots, with a quiet plea for "real photos" for Web master Gin to put up on his life's work. Also worth checking out is the Dutch language stories of contact and the files on the 'truth' behind Roswell and Area 51. Other than the invaders from outer space, there's a handy little IRC script for LINUX users. You do remember LINUX don't you?

Verdict: I'd like to believe, but I'm more interested in lunch. —NH

Networth: ★★★★

Welcome to Alien's Site! Are you interested in aliens, U.F.O.'s, mysteries, alien abductions and abduction? Yes? Then you are at the right place! You can classified files and watch U.F.O. pictures. If there is something wrong with my website or you have any comments, let me know! Your e-mail address will be sent to me. My E-mail address is gini@dds.nl and I will put it in the "files". Don't forget to sign my Guest-book! Thanks for visiting! Gini

For the LINUX users chatting with the IRC II client, I've written a nice handy script for IRC II. It gives the impression that YOU wrote it, modify and to add your own things. Beginners in script writing must get this script to practice on. Click here: [here](#) to view and save the script to read the terms first.

I'm with you Nic, lunch does seem more appealing...

A collection of funny stuff<http://www.lava.net/~jh/Funny/funny.html>

All the wit you could ever hope for in an easily-loaded text format. This is almost the Kmart of humour — nothing's particularly good, but it'll get you through until something better comes along. Actually, I'm being a little unfair. I did find one funny thing while scouring the overly large list of jokes and that was the urinal pop quiz, complete with ASCII diagrams of actual men's room situations. Then again, it was probably only funny 'cause it's true.

Verdict: One for the boredom files. —NH

Networth: ★★★★

RxList**The Internet Drug Files**<http://www.rxlist.com>

One of the more useful medical sites to spring up in the great medial information flood of 1998. Rather than trying to tell you what it was you were actually looking for in the first place, RxList is nothing more than a searchable index of common and uncommon pharmaceuticals, plus the effects of and other information relating to the drugs. It's great for anyone who's been prescribed a pharmaceutical without being told exactly what they're taking, but as always, it



doesn't replace the actual advice of a Medical Practitioner.
Verdict: Pleasingly informative. —NH
Networth: ★★★★

Vurt-u-want

<http://www.vurt.com>

Based on the excellent post-cyberpunk works of Jeff Noon, Vurt-u-want is designed to make the user feel like they have actually entered one of the novels. The novels, set in a futuristic Manchester, are some of the more interesting works around, blending science-fiction, cyberpunk and myth to create some truly unusual concepts and plotlines. Explore the deliberately lo-tech site before reading either Vurt or Pollen — it'll give you a gentle taste of what's to come.

Verdict: Like a big squeeze of Vaz. —NH
Networth: ★★★★

Scarien Nation Now Be One

<http://members.aol.com/scarien/book>

It's a book, just in case the title didn't make that obviously clear. The complete text of a book by Dr D

The Jackie Portrait Doll Franklin Mint

[Outfits 1-3](#) | [Outfits 4-6](#) | [Outfits 7-9](#) | [Outfits 10-12](#)

This was a doll I initially hesitated about, but now that she is standing on my desk, I really like her. She is the Franklin Mint's first vinyl doll, and she represents Jacqueline Kennedy in her White House years, as dressed by Cleg Cassini.

She has a rather odd figure. Her waist is large compared to her bust size, and her feet are enormous! But I bought Cleg Cassini's book about dressing Jacqueline, *A Thousand Days of Magic*, and in it are reproduced her measurements. Sure enough, Jacqueline had a large waist, a small bust, and large feet. But she also had that swanlike neck and shoulders that could carry off anything.

The doll comes dressed in the lovely strapless white satin evening gown. Velcro and all, it's a wonderful costume.



Web of Dolls

<http://www.webofdolls.com>

Ever wondered who actually buys those Franklin Mints dolls portraying Diana in a nice frock? Or what sort of person thinks that a 50s-style Barbie complete with gingham pinafore is a good conversation starter? Well, Linda does. In fact, Linda is so enamoured of plastic and porcelain that she's put up a Web site all about doll collecting. Neat, huh? This self-confessed "unashamed feminist" has really gone to town here, put up whole galleries of different dolls in different outfits. The best, of course, is the Jackie O collection, which is also the most extensive, and could keep you occupied for hours and hours.

Verdict: Awe inspiring. —NH **Networth:** ★★★★

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Automatic I am

<http://www.automatic-iam.com/design>

Yet again we dedicate this space to the world of contemporary aesthetic design and no doubt, Automatic Design and Art have won it this time. Charles Wilkin introduces his thought of assembly, an informal process of connecting art and human nature. This is "Automatic".

His use of typography is random and hand rendered usually mixed with collage, but on par with Monty Python-style extreme. Basically, it's a site to advertise his tools as a skilled graphic designer, relative to the modern information world in which we coexist today.

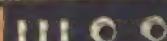
Verdict: Automatic's innovative design is incredible and may it continue to progress with more experimental thought beyond the average realm of commercial design we see today. —JW

Networth: ★★★★

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Familiar Quotations

<http://www.columbia.edu/acis/bartleby/bartlett/>

Looking for just the right pithy quote to start or end that report? Well you could do far worse than John Bartlett's *Book of Familiar Quotations*, now updated into online form. Browsable by chronological or alphabetical order, or searchable by keyword. Some of the greatest minds of pre-Twentieth century literature are present for your perusal, including such luminaries as H. F. Chorley (1831-1872) and the superb Elizabeth Akers Allen (1832—some time after the original book was printed). Not to mention a good array of the Classics, translated from Latin and Greek.

Verdict: "Bronze is the mirror of the form; wine, of the heart." Aeschylus. —NH Networth: ★★★★

Sturbin about three Beatniks and a pan-dimensional alien that take on the US Government during the 50s. As a work of fiction, it's technically unremarkable and conceptually terrifying. Also, the original foreword by Mr Scary, untranslated from the original Scarien, is the greatest feat of phonetic spelling since the last 12 year-old posted to alt.2600 trying to prove that he was a hip hacking "dood."

Verdict: Err, yeah. Sure. Whatever. —NH
Networth: ★★★★

Webfx tutorial

<http://www.fuelweb.net/webfx/>

This is an excellent site just loaded with tutorials designed to help the budding Web designer. You'll find online information about HTML, JavaScript and Web-based graphics. The tutorials are well set out and easy to follow. Perhaps even more usefully, Webfx has rated a

number of the companies that host sites, so you can have a good look at your options before you commit to a home for your site.

Verdict: Actually useful. —NH
Networth: ★★★★

Paladin Press

<http://www.paladinpress.com/>

Y2K is almost upon us, and what better place to get a little holiday reading than Paladin Press the self-proclaimed "most dangerous" publishers in the world. With a catalogue that boasts titles such as *Sniper-Countersniper*, *Justifiable Homicide: The Intelligent Use of Deadly Force* and, my personal favourite, the recently banned *Hit Man: A Technical Manual for Independent Contractors*, you can get all the information you need to protect yourself from the rampaging hordes of fear-crazed looters that will patrol the streets after Dec

31, 1999. And even if that doesn't go down quite the way you expected, you can still amuse the children with a Christmas family project of building your own .50 calibre sniper rifle.

Verdict: It takes all sorts, but some are less necessary than others. —NH
Networth: ★★★★

Jeepers

<http://www.jeepers.com>

For those not in the know, Jeepers is an absolutely massive American indoor amusement park just loaded with many and varied ways to create whiplash in small children. The Web site is surprisingly tame, concentrating more on supplying cartoonish images and actual information about the park, rather than trying to emulate the light-flashing, heart-pounding, too-many-glasses-of-red-cordial atmosphere of the real world Jeepers. Shame, but I guess they

Launch Pad

were worried about epileptic fits from too much Shockwave.

Verdict: Take two Ritalin and call me in the morning. —NH

Networth: ★★★

Twacked.net

<http://www.twacked.net>

New kid on the block in terms of journalistic online enterprises, Twacked is still the cutting edge of politics, society, and interestingly enough, technology. Not afraid to take the odd stance (and I do mean 'odd'), Twacked tends towards being a bit Amerocentric, but does manage to include enough of a global perspective to make for interesting reading no matter where you are on the net. I was particularly impressed with the quotes section, featuring both timely and timeless statements by and about people who have helped shape our current society.

Verdict: Excellent. —NH

Networth: ★★★★

Stick Death

<http://www.stickdeath.com/>

Ever wanted to bring out the sadistic side in you? The SFTD or the Stick Figure Death Theater is the best place to try. Easily divided into several categories, the SFTD shows the best of the user-submitted animated GIFs which involve stick figures dying in some way. From categories like "Circus and Carnival Accidents" to "Musical Mishaps" these are guaranteed to get a laugh out of anyone. This site is a fast-loading page, with easy navigation and hilarious content, you'll never want to leave. This site is non-profit, and non-copyrighted, so feel free to download the graphics and send to an unsuspecting friend. This site is definitely one for the bookmarks! It's not for the faint hearted...

Networth: It'll have you in stitches!

Verdict: ★★★★

— Akira
akira8331@geocities.com

The screenshot shows the homepage of Stick Death. At the top right is a logo for "STICK DEATH" with a lightning bolt and "Cola" underneath. A cartoon rocket ship is in the top right corner. The main title "STICK DEATH" is in large, bold, white letters. Below it is a sub-headline "COLA". A central image shows a stick figure sitting on a bench, looking at a sign that says "BULLS". A speech bubble above the figure says "Say one more year. Say one more year. Say one more year." At the bottom left is the URL "www.STICKDEATH.com". There is also a small note: "If you've been here before, you know the deal. If not - use the menu on the left, or select something below." At the bottom right is a note: "Over one million deaths served." and a "Public Service announcement from Stick Death, CLICK HERE!"

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Get packed

ISP EISA is set to follow the path made by hardware company Gateway by offering computer and Internet access packages. EISA plans to sell a low-priced computer to customers, bundled with a two year unlimited access account for \$49.95 per month. Under the plan, customers can buy a computer featuring a 300MHz Cyrix processor, 32Mb of RAM and a 3.2Gb hard drive

for only \$399 plus the two year plan. The package is aimed at people who are upgrading to a new computer, with modems and monitors being optional extras for a further fee. The move by EISA is part of a wider movement by ISPs to offer alternative solutions to consumers who can't afford to pay large lump sums for expensive computers. Details at <http://www.eisa.net.au>.

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Free Internet access?

Brisbane-based ISP, Internet 4 Free, has launched a new service that claims to offer free Internet access. The service boasts free unlimited 56Kbps connections, with the only expense being the purchase of the \$99 connection software. According to the Managing Director of Internet 4 Free, James Collins, the ambitious project will be funded by advertising sales, with the proprietary software automatically displaying advertising messages

on your screen when you are connected to the Internet. Collins says the service will greatly increase the number of people connecting to the net: "There is potential for explosive growth within the industry. Internet development has been held back for too long, restricted by high costs of service and infrastructure." The service will begin operations in Brisbane before expanding to the rest of Australia. Find out more at <http://www.in4free.com.au>.

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About Internet 4 Free

Communications industry grows up...

The Federal Government has released a report which shows the communications industry continuing to demonstrate high growth, especially in areas such as export sales. Released by the acting Minister for Communications, Peter McGauran, *The Communications Industry Pulse Survey* is an annual review of the state of the Australian communications industry. The survey found the communications industry (excluding telecommunications carriers) was in a sustained period of growth, showing a 99 per cent increase in capital expenditure over 1998, with a rise of \$353 million.

Communications carriers also spent more on development

in 1998, with a 24 per cent increase in R&D expenditure. Export sales were another growth area with Australian companies exporting \$2.1 billion in goods and services, an increase of 36 per cent from the previous year. The survey also examined telecommunications carriers, finding that over the 1997-98 period Australian telcos turned over \$20 billion in inter-carrier payments, spent \$5 billion on capital expenditure and paid out \$420 million for R&D. In releasing the report, the acting Minister for Communications said the results reflected a high level of confidence in the Australian communications industry.

isp directory

multiple location providers

ISP list compiled by Kim Davies.

- For more information, check The Australian ISP List:
<http://www.cynosure.com.au/isp>
- Send corrections to isp@ia.com.au

| Provider | Phone (voice) | e-mail | Areas |
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| Access 2 | 1902 243 730 | info@2.com.au | Melbourne, Sydney |
| Access Net Australia | (03) 9686 4192 | info@access.net.au | Adelaide, Brisbane, Canberra, Croydon, Dandenong, Dural, Engadine, Geelong, Hobart, Kalkallo, Liverpool, Melbourne, Newcastle, Perth, Southport, Sunbury, Sydney, Werribee, Whittlesea, Wollongong |
| Access One | 1800 818 391 | info@one.net.au | Adelaide, Albury, Armadale, Bairnsdale, Ballan, Ballarat, Bathurst, Bendigo, Blackall, Blacktown, Brisbane, Bundaberg, Cairns, Canberra, Coleraine, Croydon, Darwin, Daylesford, Dookie, Echuca, Geelong, Gladstone (QLD), Gosford, Gundaroo, Hamilton, Hill End (VIC), Hobart, Ingham, Kalamunda, Launceston, Liverpool, Mackay, Melbourne, Mildura, Morwell, Nambour, Newcastle, Pakenham, Perth, Port Pirie, Portland (VIC), Redcliffe, Rockhampton, Rosebud, Sale, Shepparton, Southport, Strathfieldsaye, Sunbury, Sydney, Tatura, Toowoomba, Townsville, Wangaratta, Wanneroo, Warrnambool, Whyalla, Wollongong, Yinnar |
| Access Sydnet | (02) 9873 6400 | sales@syd.net.au | Campbelltown, Canberra, Gosford, Sydney |
| Accsoft Internet Services | (02) 9281 8163 | sales@accsoft.com.au | Brisbane, Melbourne, Sydney |
| Ace Internet Services | (02) 4862 2988 | sales@ace.com.au | Bowral, Narellan |
| ACR.net | (02) 6492 3677 | admin@acr.net.au | Bateman's Bay, Canberra, Snowy Mountains |
| Albury Local Internet | (02) 6040 2692 | info@albury.net.au | Albury, Barnawartha, Beechworth, Corowa, Corryong, Culcairn, Gerogery, Holbrook, Mt Beauty, Ournie, Talgarno, Tallangatta, Wangaratta, Yackandandah |
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| AOL | 1800 265 265 | — | Adelaide, Brisbane, Canberra, Hobart, Melbourne, Perth |
| APA Communications | (02) 9221 1177 | info@apanet.com.au | Canberra, Sydney |
| APANA | — | info@apana.org.au | Adelaide, Brisbane, Canberra, Darwin, Geelong, Hobart, Melbourne, Sydney, Wollongong |
| AT&T Easylink Services Aust. Pty Ltd | 1 800 800 057 | attmbo@att.net.au | Melbourne, Sydney |
| AUSNet Services | (07) 5561 7556 | sales@world.net | Adelaide, Brisbane, Canberra, Darwin, Melbourne, Perth, Sydney |
| austasia.net Pty Ltd. | (03) 5223 2162 | info@austasia.net | Geelong, Melbourne, Newcastle, Penrith, Sydney |
| Australia On Line | 1800 621 258 | sales@ozonline.com.au | Melbourne, Sydney |
| Australian Capital Region Network | (02) 6492 3677 | admin@acr.net.au | Bega, Berridale, Bombala, Eden, Moruya |
| Australian NetLink | 1300 655 066 | info@netlink.com.au | Geelong, Melbourne, Sydney |
| Better Net Pty Ltd | (02) 66728887 | support@better.net.au | Murwillumbah, Tweed Heads |
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| CyberOne | (02) 6251 6111 | sales@cyberone.com.au | Canberra, Sydney |
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| Dot Communications Ltd | (02) 9281 1111 | sales@dot.net.au | Melbourne, Sydney |
| DOVE Australia Pty Ltd | (08) 8212 1799 | admin@dove.net.au | Adelaide, Alice Springs, Apsley, Berri, Darwin, Kapunda, Mount Gambier, Naracoorte, Port Augusta, Tantanoola, Victor Harbor, Whyalla |
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| ITEC Australia | (03) 9654 3533 | sales@itec.edu.au | Melbourne, Sydney |
| Knowledge by Design Pty Ltd | (02) 9212 1399 | info@kbd.com.au | Melbourne, Sydney |
| LibertyOne Online | 1800 809 164 | info@libertyone.com.au | Adelaide, Albury, Armadale, Bairnsdale, Ballan, Ballarat, Bathurst, Bendigo, Blackall, Blacktown, Brisbane, Bundaberg, Cairns, Canberra, Coleraine, Croydon, Darwn, Daylesford, Dookie, Echuca, Geelong, Gladstone (Qld), Gosford, Gundaroo, Hamilton, Hill End (VIC), Hobart, Ingham, Kalamunda, Launceston, Liverpool, Mackay, Melbourne, Mildura, Morwell, Nambour, Newcastle, Pakenham, Perth, Port Pirie, Portland (VIC), Redcliffe, Rockhampton, Rosebud, Sale, Shepparton, Southport, Strathfieldsaye, Sunbury, Sydney, Tatura, Toowoomba, Townsville, Wangaratta, Wanneroo, Warrnambool, Whyalla, Wollongong, Yinnar |
| Mac Connect | 1300 364 374 | sales@macconnect.net.au | Adelaide, Brisbane, Canberra, Croydon, Dandenong, Dural, Engadine, Geelong, Hobart, Kalkallo, Liverpool, Melbourne, Newcastle, Perth, Southport, Sydney, Werribee, Wollongong |
| MacroTec Computer | 1300 720 724 | sales@mt.com.au | Croydon, Melbourne, Sydney |
| Magna Data Australia Pty Ltd | (02) 9272 9600 | info@magna.com.au | Brisbane, Melbourne, Sydney, Wollongong |
| Mania Computers and Internet | (02) 4647 4646 | sales@mania.com.au | Campbelltown, Camden, Penrith, Wollongong, Sydney |
| Matra Internetworks | (02) 9371 7318 | support@matra.com.au | Canberra, Sydney |
| Maxi Internet Services | (02) 9150 0314 | chrisc@maxi.net.au | Adelaide, Beenleigh, Melbourne, Perth, Sydney |
| McPherson Media Internet | (03) 5831 6517 | helpdesk@mcmmedia.com.au | Benalla, Blighty, Deniliquin, Echuca, Numurkah, Seymour, Shepparton, Swanpool, Tatura, Microplex |
| Microplex | (02) 9348 1234 | info@mpx.com.au | Adelaide, Albury, Armidale, Brisbane, Bundaberg, Cairns, Campbelltown, Canberra, Mira, Deniliquin, Gostford, Gunnedah, Hobart, Lawson, Mackay, Melbourne, Moree, Nambour, Narrabri, Newcastle, Nowra, Orange, Perth, Port Macquarie, Rockhampton, Southport, Sydney, Tamworth, Townsville, Wagga, Wollongong |
| Mira Networking Pty Ltd | 1300 360 080 | sales@mira.net | Brisbane, Melbourne, Sydney, Perth, Adelaide |
| Mondial Net | 1800 812 273 | info@mondial.net.au | Brisbane, Croydon, Melbourne, Sydney, Nationwide Local Call |
| Namadgi Corporation | (02) 6280 0370 | sales@namadgi.com | Canberra, Sydney |
| Netro | (02) 9922 5255 | info@netro.com.au | Melbourne, Sydney |

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| Nornet | (02) 6620 3170 | accounts@nor.com.au | Bellingen, Casino, Cooperslook, Grafton, Kyogle, Lismore (NSW), Mullumbimby, Port Macquarie, Telegraph Point, Tweed Heads |
| Northern Exposure Technologies | (02) 6672 8866 | support@nrex.com.au | Mullumbimby, Murwillumbah, Tweed Heads |
| Odyssey World | (07) 3854 1066 | info@odyssey.com.au | Brisbane, Sunshine Coast, Sydney |
| Om.Com | (02) 6887 7117 | info@om.com.au | Lismore, Sydney |
| OMCS | (07) 5523 3010 | info@omcs.com.au | Bellingen, Coffs Harbour, Dorrigo, Murwillumbah, Southport, Tweed Heads |
| One.Net | 1300 303 312 | hotline@one.net.au | Bega, Brisbane, Caboolture, Campbelltown, Coffs Harbour, Lismore (NSW), Melbourne, Mount Isa, Penrith, Perth, Port Macquarie, Sydney, Tamworth, Townsville, Tweed Heads, Wagga, Windsor (NSW), Wollongong |
| Optusnet | 1300 302 937 | optussales@optusnet.com.au | Ballarat, Bendigo, Geelong, Melbournre, Mildura, Albury, Armadale, Orange, Bathurst, Campbelltown, Canberra, Gosford, Newcastle, Nowra, Coffs Harbour, Deniliquin, Katoomba, Lismore, Moree, Narrabri, Newcastle, Port Macquarie, Sydney, Tamworth, Wollongong, Wagga Wagga, Penrith, Gunnedah |
| Ozdocs Internet Services | (02) 9899 2000 | info@ozdocs.net.au | Brisbane, Bundaberg, Cairns, Gympie, Dalby, Gold Coast, Harvey Bay, Kingaroy, Mackay, Rockhampton, Sunshine Coast, Toowoomba, Townsville, Adelaide, Perth, Hobart |
| OzEmail | 132 884 | sales@ozemail.com.au | Melbourne, Sydney, Windsor (NSW) |
| Ozland Internet Services | (03) 5021 2991 | webmaster@ozland.net.au | Adelaide, Albury, Alice Springs, Armidale, Brisbane, Broken Hill, Bundaberg, Cairns, Campbelltown, Canberra, Coffs Harbour, Darwin, Dubbo, Geelong, Gosford, Goulburn, Griffith, Hobart, Lismore (NSW), Lithgow, Mackay, Melbourne, Nambour, Newcastle, Nowra, Orange, Penrith, Perth, Port Macquarie, Rockhampton, Southport, Sydney, Tamworth, Taree, Toowoomba, Townsville, Wagga Wagga, Wollongong |
| OzRamp | 1300 650 202 | info@ozramp.net.au | Berri, Broken Hill, Mildura, Wakkerie |
| OzSurf | 1800 244 485 | sales@ozsurf.net.au | Brisbane, Melbourne |
| Pegasus Networks | (07) 3259 6259 | pegasus@pegasus.com.au | Adelaide, Beenleigh, Melbourne, Perth, Sydney |
| Planet Internet | 1300 364 345 | sales@planet.net.au | Adelaide, Albury, Armidale, Ballarat, Brisbane, Bundaberg, Cairns, Campbelltown, Canberra, Dalby, Darwin, Deniliquin, Geelong, Gosford, Gunnedah, Gympie, Hobart, Kingaroy, Lawson, Lismore (NSW), Mackay, Melbourne, Mildura, Moree, Nambour, Narrabri, Newcastle, Nowra, Orange, Penrith, Perth, Pialba, Port Macquarie, Rockhampton, Southport, Sydney, Tamworth, Toowoomba, Townsville, Wagga Wagga, Wollongong |
| Professionals | 1300 655 577 | admin@zip.com.au | Queensland, Rockhampton |
| Pronet | 1300 301 160 | info@pronet.net.au | Bendigo, Broken Hill, Charlton, Donald, Kerang, Mildura, Nyah, Ouyen, Pyramid Hill, Robinvale, Swan Hill, Wycheeproof, St Arnaud, Horsham |
| Read & Associates | (02) 9746 9399 | warren@read.net.au | Blue Mountains, Melbournre, Penrith, Sydney |
| Rocknet | (07) 4922 2760 | sales@rocknet.net.au | Brisbane, Burdekin, Cairns, Caloundra, Emerald, Gold Coast, Gympie, Hervey Bay, Mackay, Melbourne, Rockhampton, Sydney, Townsville |
| Ruralnet | (03) 5021 0150 | info@ruralnet.net.au | Brisbane, Sydney |
| Silicon Crafts Internet Services | (02) 9899 2000 | info@ozdocs.net.au | Brisbane, Queensland, Rockhampton |
| South Coast Internet | 1800 654 797 | info@sci.com.au | Bendigo, Broken Hill, Charlton, Donald, Kerang, Mildura, Nyah, Ouyen, Pyramid Hill, Robinvale, Swan Hill, Wycheeproof, St Arnaud, Horsham |
| Spin Internet Services | (02) 9905 4277 | info@spin.net.au | Blue Mountains, Melbournre, Penrith, Sydney |
| Stealth Internet | 1800 888 638 | accounts@stealth.com.au | Bateman's Bay, Braidwood, Moruya, Narooma |
| Switch Telecommunications | 13 21 91 | sales@hq.switch.net.au | Brisbane, Melbourne, Sydney, Sydney |
| Telstra Big Pond Cable | 1800 060 391 | cableinfo@bigpond.com | Brisbane, Cleveland, Griffith, Stanbridge |
| Telstra Big Pond Home | 1800 804 282 | info@bigpond.com | Brisbane, Melbourne, Sydney |
| The Internet Group | 13 62 92 | sales@ihug.com.au | Adelaide, Albury, Alice Springs, Armidale, Ballarat, Bendigo, Brisbane, Broken Hill, Bunbury, Bundaberg, Burnie, Cairns, Canberra, Coffs Harbour, Cranbourne, Darwin, Dubbo, Geelong, Geraldton, Gladstone (QLD), Gosford, Goulburn, Helensburgh, Hobart, Kalgoorlie, Launceston, Lismore (NSW), Mackay, Maitland (NSW), Maryborough (QLD), Melbourne, Mildura, Mt Gambier, Mt Isa, Mullumbimby, Nambour, Nowra, Orange, Penrith, Perth, Port Augusta, Port Macquarie, Rockhampton, Rockingham, Shepparton, Southport, Sydney, Tamworth, Taree, Toowoomba, Townsville, Wagga Wagga, Warrnambool, Wollongong |
| TMX | 1800 806 962 | info@tmx.com.au | Melbourne, Sydney, Brisbane |
| Topend.Com.Au | (08) 8981 4999 | info@topend.com.au | Brisbane, Melbourne, Sydney |
| TPG Internet | (02) 9850 0800 | internet_sales@tpg.com.au | Alice Springs, Cloncurry, Darwin, Katherine, Mount Isa, Tennant Creek, Townsville |
| TrumpNet | 1300 361 220 | info@trump.net.au | Adelaide, Albury, Armidale, Ayr, Ballarat, Bathurst, Bendigo, Biloela, Bowen, Brisbane, Broome, Bunbury, Bundaberg, Cairns, Canberra, Coffs Harbour, Croydon, Darwin, Dubbo, Emerald (QLD), Geelong, Gladstone (QLD), Goulburn, Gympie, Hobart, Kiamo, Launceston, Leongatha, Longreach, Mackay, Mareeba, Melbourne, Mount Isa, Newcastle, Perth, Proserpine, Rockhampton, Roma, Sale, Shepparton, Southport, Sydney, Tamworth, Taree, Toowoomba, Townsville, Tumut, Wagga, Warragul, Warrnambool |
| Ununet Computer Services | (07) 3348 3835 | ununet@ununet.net.au | Hobart, Launceston, Ulverstone, Melbourne, Geelong, Cranbourne, Mornington, Healesville, Emerald, Pakham, Gisborne, Romsey, Kilmore, Kinglake, Lara, Balliang, Bacchus Marsh, Sydney, Newcastle, Wollongong, Gosford, Wisemans Ferry, Windsor, Penrith, Mulgoa, Camden, Campbelltown, Helensburgh, Brisbane, Gold Coast, Perth, Adelaide, Canberra |
| Wantree Internet | (08) 9221 8899 | sales@wantree.com.au | Adelaide, Armadale, Armadale, Herne Hill, Mount Barker (SA), Perth, Salisbury, Wanneroo |
| Web Australis | (02) 9805 1911 | Bob@australis.net.au | Adelaide, Katoomba, Sydney |
| Web-A-You Internet Services | 1800 455 666 | cmccall@webau.com | Adelaide, Beenleigh, Melbourne, Perth, Sydney |
| Zeta Internet | (02) 9231 9400 | info@zeta.org.au | Camden, Campbelltown, Gosford, Helensburg, Mulgoa, Penrith, Sydney, Windsor, Wisemam's Ferry |
| Zip World Pty Ltd | 1300 655 577 | admin@zipworld.com.au | Brisbane, Liverpool, Melbourne, Sydney, Wollongong |

local providers

| Provider | Phone [voice] | e-mail | Regional dial up | Provider | Phone [voice] | e-mail | Regional dial up |
|-------------------------------------|------------------|-------------------------------|---------------------|-------------------------------------|------------------|-----------------------------|---------------------|
| Australian Capital Territory | | | | | | | |
| ACT Online | (02) 6247 5555 | admin@internetservices.com.au | yes | DragNet Internet Services Pty Ltd | 1800 069 050 | sales@dragnet.com.au | yes |
| APEX Internet | (02) 6247 2000 | info@apex.net.au | yes | E2F Pty Ltd | (02) 4739 0695 | cdou@mailserver.bhq.net.au | yes |
| AuCom Pty Ltd | (02) 6231 1704 | sales@aucom.com.au | yes | Easynet | (02) 9437 9290 | sales@easy.com.au | no |
| Big River Internet | (02) 6645 1133 | admin@bri.net.au | yes | Ezeelinx Internet | (02) 9626 5459 | sysop@ezeelinx.com.au | no |
| Clover Computing | (02) 6285 2421 | office@clover.com.au | yes | Fastlink Communications | (02) 9627 3054 | sysop@fastlink.com.au | yes |
| COS.COM Pty Ltd | (02) 6293 3999 | info@cos.com.au | yes | FASTmail Internet Services | (02) 9688 1238 | support@fast.net.au | no |
| FunnelWeb Internet | (02) 6230 6161 | antivenom@atrax.net.au | yes | Fastrac Internet Services | (02) 4422 6262 | webmaster@fastrac.net.au | yes |
| Interline Internet Access | (02) 6299 8758 | info@interline.com.au | yes | First Link Internet Services | (02) 9518 6800 | accounts@fl.net.au | yes |
| NetEffect Internet | (02) 6282 0777 | sales@sefect.net.au | yes | First Net | (02) 9755 9455 | sales@first.net.au | no |
| NetSpeed Internet Communications | (02) 6280 8585 | admin@netspeed.com.au | yes | Firstnet.com.au Pty Ltd | (02) 9755 9455 | sales@firtnet.com.au | no |
| Netview Information Systems | 018 620 538 | mghonim@netview.net.au | yes | FlexIT | (02) 9707 3622 | info@flex.com.au | no |
| ORAC Global Internet Pty Ltd | (02) 6230 6969 | info@orac.net.au | yes | Galaxy Internet | (02) 9999 0581 | info@galnet.net | no |
| Powersurf Network | (02) 6297 6580 | chev-on@powersurf.net.au | yes | Goldweb Internet | (02) 6253 0059 | info@goldweb.com.au | yes |
| SafetyWeb | (02) 6257 9901 | info@safetyweb.com.au | yes | GolSyd | (02) 9686 9037 | admin@golsyd.net.au | no |
| Spacenet Australia Pty Ltd | (02) 6231 7219 | sales@spacenet.com.au | yes | Goulburn Internet Pty Ltd | (02) 4872 2400 | info@goulburn.net.au | yes |
| Spirit Networks | (02) 6231 6477 | sales@sprint.com.au | yes | Great Lakes Hardnet Cafe | (02) 6557 5777 | sales@gl.hardnet.com.au | yes |
| TekNet Canberra | (02) 6293 3333 | murwat@canberra.teknet.net.au | yes | hare.net | (02) 9925 0602 | jack@hare.net.au | no |
| WebOne | (02) 6242 0605 | info@webone.com.au | yes | Hartingdale Pty Ltd | (02) 9439 1020 | admin@hartingdale.com.au | no |
| New South Wales | | | | | | | |
| A1 Superlink Pty Ltd | (02) 9564 3878 | admin@aisl.com.au | no | Harvey Norman Internet Now | (02) 9201 6111 | support@harveynorman.com.au | no |
| AAA Computers | 0418 292 020 | sales@aaanet.net.au | no | HawkNet Australia | (02) 4587 8884 | sales@hawknet.com.au | yes |
| ACAY | (02) 9411 7340 | Sales@acay.com.au | yes | Healey Communications | (02) 9834 6055 | sales@healey.com.au | no |
| Ace Internet Services | (02) 4862 2988 | sales@acenet.com.au | yes | Hermes Internet | (02) 4782 6111 | admin@hermes.net.au | yes |
| Adap-2-Us | (02) 9746 1492 | sales@afu.com.au | no | Highlands Internet Pty Ltd | (02) 4872 2094 | info@hinet.net.au | yes |
| Aljan.Net | (02) 4957 7959 | sales@aljan.com.au | yes | Hunterlink | (02) 4999 6622 | sales@hunterlink.net.au | yes |
| All Things Internet | (02) 9755 9455 | Sales@atinet.com.au | no | Hydra Communications | (02) 9897 5476 | info@hydra.com.au | no |
| Alpha Dot Net | (02) 9211 7782 | sales@alpha.net.au | no | IDEAL Internet Services | 1300 360 858 | sales@ideal.net.au | yes |
| AlphaNet | (02) 9413 3886 | webmaster@alphonet.com.au | no | IDL Internet | (02) 4961 4356 | helpdesk@idl.net.au | yes |
| ANS Communications Pty Ltd | (02) 9552 1655 | info@ans.com.au | no | IIS Webnet Deniliquin | (03) 5881 1455 | gordan@clubworld.net.au | yes |
| Aquarius Communications | (02) 9977 3788 | Sales@aquarius.com.au | no | I.T. LITE Internet Services Pty Ltd | (02) 9676 6435 | manager@itlite.com.au | no |
| AR Internet | (02) 9809 3148 | info@ar.com.au | no | Ideal Internet Services | (02) 46288888 | webmaster@ideal.net.au | yes |
| Arcadia Online | (02) 9874 8581 | sales@at.com.au | no | IDXNet Computing | (02) 9874 9800 | info@idx.com.au | no |
| Asia Pacific Internet Company | (02) 9419 5333 | info@apic.net | no | IForm | (02) 9388 7777 | sales@iform.com.au | no |
| Aspire Internet Services | (02) 4225 2910 | admin@aspire.com.au | yes | Industrial OnLine | (02) 9412 2100 | sales@iol.com.au | no |
| Auscape Internet Pty Ltd | (02) 9647 2728 | desk@auscape.net | no | iNFINET AXS | (02) 9662 3530 | account@infinet.net.au | no |
| Australian Internet Company Pty Ltd | (02) 9231 2211 | sales@aic.net.au | no | Infoflex Pty Ltd. | (02) 9894 1313 | sean@infotext.com.au | no |
| Australia Connect Pty Ltd | (02) 9387 5077 | admin@acon.com.au | no | INIAccess | (02) 49876083 | sales@iniaccess.net.au | yes |
| AY Communications | (02) 9905 2883 | info@ay.com.au | no | Integral Internet | (02) 9369 2983 | info@integral.net.au | no |
| BackMeUp | (02) 9546 4942 | BackMeUp@backmeup.net.au | no | Interactive GlobalNet | (02) 9662 1761 | admin@ign.com.au | no |
| Batemans Bay Internet Services | 1800 249 008 | admin@batemansbay.com | yes | Intercoast Systems Pty Ltd | (02) 9977 1444 | sales@intercoast.com.au | no |
| Beehive Internet | (02) 9729 0565 | queen@beehive.inoz.com | yes | Internet Express | (02) 6332 9999 | admin@ix.net.au | yes |
| Blue Mountains Internet | (02) 4739 0695 | webmaster@mountains.net.au | yes | Internet Infobahn | (08) 9226 1011 | sales@infobahn.com.au | no |
| BMR.NET Internet Services | (02) 4987 7077 | master@bmr.com.au | no | IS-1 Internet Service Provider | (02) 9831 5031 | admin@is-1.net.au | no |
| Braenet | 1800 150 543 | sales@braenet.com.au | no | Island Internet Services | (02) 9880 2644 | sales@island.net.au | no |
| Braidwood Net | (02) 4842 2852 | info@braidwood.net.au | yes | ISP Doctor | (02) 4647 8888 | sales@ispdr.net.au | yes |
| Catchnet | (02) 4256 3500 | admin@catchnet.com.au | yes | ISP Interactive | (02) 9544 1614 | info@active.net.au | no |
| Central Coast Internet | (02) 4389 8755 | admin@cci.net.au | yes | Jigsaw Technology | (02) 9672 4222 | info@jigsaw.com.au | no |
| Cherry Access | (02) 9221 8888 | sales@cherry.com.au | no | JustNet Pty Ltd | (02) 9948 8449 | sales@justnet.com.au | no |
| Chilli Internet Solutions | (02) 9389 2853 | info@chilli.net.au | no | K-Tech Computers | (02) 4285 0202 | Info@ktech.com.au | yes |
| Citylink Internet Service | (02) 9804 8088 | admin@mail.citylink.com.au | no | Key Internet Services | (02) 6658 2758 | Info@key.net.au | yes |
| Compass Net | (02) 9793 9600 | info@compassnet.com.au | no | Knowledge by Design Pty Ltd | (02) 9212 1399 | Info@kbd.com.au | no |
| Computer Research and Technology | (02) 4226 6456 | gailw@ctr.net.au | yes | LISP | (02) 6352 1752 | Inquire@lisp.com.au | yes |
| Connect InfoBahn Australia | (02) 9566 2720 | sales@cia.com.au | no | Linkpro Internet | (02) 9283 3555 | Info@linkpro.com.au | no |
| Connectivity Australia Pty Ltd | (02) 4227 5483 | ian@connectivity.net.au | yes | Lismore Internet Services | (02) 6622 7766 | Info@lis.net.au | yes |
| Coscom Technology | (02) 4933 8767 | sales@coscom.net | yes | LiSP Bourke | (02) 6872 1775 | michael@lisp.com.au | yes |
| CSCCS Internet | (02) 6292 1985 | hostmaster@cs.net.au | no | Matra Internetworks | (02) 9371 7318 | Info@matra.com.au | no |
| Cyber Corporation | (02) 9817 2711 | sales@cybel.com.au | no | Mid North Coast Internet | (02) 6584 0900 | helpdesk@midcoast.com.au | yes |
| CyberGate PlatNet | (02) 9567 0400 | info@hapla.net | no | Morgan Service | (02) 9661 6298 | admin@morgan.net.au | no |
| Cyberelectric | (02) 4227 1624 | greg@cyberelectric.net.au | yes | Mosman City Internet Services | (02) 9968 4505 | webmaster@netpro.net.au | no |
| Cyberloom Pty Ltd | (02) 9212 4263 | info@loom.com.au | no | Mudgee Internet | (02) 6372 0100 | sales@winsoft.net.au | yes |
| Cybernet Pty Ltd | (02) 9757 4577 | sales@cyber.net.au | yes | Mullumbimby Access Point | (02) 6684 3899 | map@mullum.com.au | yes |
| Dialix Nelson Bay | (02) 4984 1422 | steve@nelsonbay.com | yes | Nambucca Valley Internet | (02) 6568 9030 | Info@nvi.net.au | yes |
| Dot Communications | (02) 9281 1111 | sales@dot.net.au | no | Nectar Online Services | (02) 9958 5740 | Info@nectar.com.au | no |

local providers

Provider

| Provider | Phone (000) | e-mail | Regional dial up |
|---------------------------------|----------------|------------------------------|---------------------|
| Netpage | 1300 650 937 | info@netpage.net.au | no |
| Netwit Communications | (02) 6361 2627 | staff@netwit.net.au | yes |
| Next Century Australia Pty Ltd | (02) 9834 3876 | info@nextcentury.com.au | no |
| NLC | (02) 9489 4932 | info@nlc.net.au | yes |
| Nobby's Net | (02) 4925 3080 | sales@nobbys.net.au | yes |
| Northern Rivers Gateway | (02) 6622 3488 | admin@mrg.com.au | yes |
| Northnet Internet Services | (02) 6774 9300 | gkemp@northnet.com.au | yes |
| NPGX Pty Ltd | (02) 9757 3306 | info@npxg.com.au | no |
| Octec Inc. Central West Web | (02) 6362 7973 | webmaster@cww.octec.org.au | yes |
| Om.Com Pty Ltd | (02) 6687 7117 | info@om.com.au | yes |
| One Earth Internet | (02) 4226 9007 | sales@earth.net | yes |
| Oz-One Internet Services | (02) 9604 1883 | sales@oz-one.com.au | no |
| pcProNET | (08) 8087 8686 | admin@pcpro.net.au | yes |
| Penrith Netcom | (02) 4735 7000 | info@pnc.com.au | yes |
| Preferred Internet Provider | (02) 9488 7655 | info@pip.com.au | yes |
| Qd.com | (02) 9437 1277 | shop@qd.com.au | no |
| Ram Network Services | (02) 9953 0368 | sales@ram.net.au | no |
| RealNet Access | (02) 9212 4900 | info@real.net.au | no |
| Rivers Network | (02) 9419 4268 | info@rvernet.com.au | no |
| Rom Technologies | (02) 9948 1199 | moored@romtech.com.au | no |
| RP Internet Services | (02) 9832 0000 | information@rp1.net.au | no |
| SafetyWeb | (02) 6257 9901 | info@safetyweb.com.au | no |
| Sapphire Coast Internet | (02) 6495 2666 | support@sapphirecoast.net.au | yes |
| ScoastNet | (02) 4455 5177 | sales@scoastnet.com.au | yes |
| Senalink Internet Services | (02) 9972 9268 | sysop@senalink.com.au | no |
| Shoalhaven Internet Services | (02) 4422 5040 | admin@shoalhaven.net.au | yes |
| Shoalnet | (02) 4422 5014 | sales@shoal.net.au | yes |
| South Coast Internet | (02) 4842 2852 | info@sci.net.au | yes |
| Sneaker Net | (02) 9743 4233 | god@sneaker.net.au | no |
| Speed Internet Services Pty Ltd | (02) 9906 7088 | sales@speednet.com.au | no |
| Suburbia Public Access Network | (02) 9279 4200 | info@suburbia.com.au | no |
| Summit Internet Solutions | (02) 4578 4254 | accounts@summit.net.au | no |
| Switch.com Pty Ltd | (08) 8962 3124 | administrator@switch.com.au | yes |
| Sydney Dot Net | (02) 9419 5333 | info@sydney.net | no |
| Sydweb | (02) 9960 1075 | | no |
| Synflux International | (02) 9712 2411 | info@synflux.com.au | no |
| Terrigal Net | (02) 4385 6534 | sales@terregal.net.au | yes |
| The Planet Cybergate | (02) 9567 0400 | info@thepla.net | no |
| TokyoNet | (02) 9580 8540 | info@tokyonet.com.au | no |
| Topend.Com.Au | 1800 686 455 | info@topend.com.au | no |
| TotalNet | (02) 9874 9977 | info@total.net.au | no |
| Triode Internet | (02) 9389 8303 | paulb@triode.net.au | no |
| Topnet Internet Services | (02) 9550 5550 | sale@topnet.com.au | no |
| Tudogs | (02) 4385 2335 | sales@tudogs.net.au | yes |
| viper.net.au | (02) 9699 3837 | sales@viper.net.au | no |
| Wallis's Web | (02) 6651 7707 | webmaster@coffs.net.au | yes |
| Warren Pont | (02) 4753 6994 | welcome@sydnets.com | yes |
| WebFront | (02) 69641 890 | sales@webfront.net.au | yes |
| Webmail | 1300 651 006 | info@webmail.com.au | no |
| Webtel | 1800 244 465 | sales@webtel.net.au | yes |
| Wolf Computer Solutions | (02) 4647 6055 | sales@wolf.net.au | yes |
| Wollongong Ezynet | (02) 4295 3333 | accounts@ezynet.net.au | yes |
| World.Net | (02) 9279 2900 | sales@world.net | no |
| Xpress! Net Internet | 0419 249 840 | dready@xpress.net.au | no |
| Zed Connect Pty Ltd | (02) 9310 5660 | sales@zed.org | no |

Northern Territory

| | | | |
|-----------------------|----------------|-------------------------|-----|
| AccessNT Pty Ltd | (08) 8932 3566 | phoenix@accessnt.com.au | no |
| Octa4 | (08) 8941 0699 | info@octa4.net.au | yes |
| NT Technology Pty Ltd | (08) 8971 0003 | info@nt-tech.com.au | no |

Queensland

| | | | |
|-------------------|----------------|--------------------------|-----|
| AceConnect | (07) 5443 9133 | acecon@aceconnect.com.au | yes |
| Asgard.net | (07) 3277 3255 | sales@asgard.net.au | no |
| Atlantic Internet | (07) 3369 9077 | admin@atlantech.com.au | no |

Provider

| Provider | Phone (000) | e-mail | Regional dial up |
|-----------------------------------|----------------|------------------------------|---------------------|
| Auslinks | (07) 5561 7566 | sales@auslinks.com | yes |
| Ausnetwork Pty Ltd | (07) 5479 0380 | admin@ausnetwork.com.au | yes |
| Australian Commercial Electronics | (07) 3854 1112 | admin@acenet.net.au | no |
| Australian Fast Network Pty Ltd | (07) 5526 2588 | chan@afnet.com.au | yes |
| Basics & Beyond Education | (07) 5443 8800 | bas_bey@babe.net.au | yes |
| Bayside Internet | 1300 301 518 | sales@bayside.net.au | yes |
| Beach Access | (07) 5478-0644 | lifeguard@beachaccess.com.au | yes |
| Beyond Net NQ | (07) 4728 7050 | sales@beyond.net.au | yes |
| Big.net.au | (07) 3861 0000 | support@big.net.au | yes |
| Brisbane Internet Technology | (07) 3252 1500 | sales@bit.net.au | no |
| BrisNet | (07) 3229 3269 | info@brisnet.org.au | yes |
| Caboolture Networks | (07) 5495 6969 | support@caboolture.net.au | yes |
| Cairns Network Services | (07) 4041 1617 | cairns@cairns.net.au | yes |
| CaloundraNet | (07) 5491 5169 | richard@caloundranet.net.au | yes |
| Closer To Home Systems | (07) 5499 3000 | info@mail.cth.com.au | yes |
| Coastnet Internet Services | (07) 5476 1311 | info@coastnet.net.au | yes |
| Coolangatta.Gold.Com | (07) 5599 3300 | ken@coolgold.com.au | yes |
| CyberBiz Internet Services | (07) 3848 9010 | sales@cyberbiz.net.au | no |
| Design Online | (07) 3250 1545 | info@design.net.au | no |
| Digital Connect Communications | (07) 3219 4540 | sales@dcc.net.au | no |
| Digital Express Internet | 1300 301 518 | sales@digexpress.com | yes |
| Easy Internet Services Pty Ltd | (07) 4953 3331 | deon@easy.net.au | yes |
| ECN Internet | (07) 3870 4316 | sales@ecn.net.au | no |
| Enter Net Australia Pty Ltd | (07) 4632 0966 | admin@enter.net.au | yes |
| Fast Access Network | (07) 5574 1050 | info@fan.net.au | yes |
| Fast Internet | 1800 359 484 | admin@fastinternet.net.au | yes |
| Global Info-Links | 1300 650 980 | giladmin@gil.com.au | no |
| Globec Internet Services Pty Ltd | (07) 3398 4254 | info@globec.com.au | no |
| Hub Communications Pty Ltd | (07) 3229 1119 | info@thehub.com.au | no |
| Hypermax Pty Ltd | (07) 3294 7687 | sales@hypermax.net.au | yes |
| InterLink Internet Services | (07) 3899 8000 | sales@interlink.net.au | yes |
| Internet Information Group | (07) 4051 0202 | info@lig.com.au | yes |
| Internet North | (07) 4033 2311 | sales@internorth.com.au | yes |
| Internet On the Coast Pty Ltd | (07) 5578 8518 | iota@usinfo.com.au | yes |
| Internet Unlimited | (07) 4031 3600 | sales@lu.com.au | yes |
| ION Internet Services | 0500 896 777 | admin@ion.com.au | yes |
| Just the Net | (07) 3345 6163 | jtn@jtn.net.au | no |
| Ledanet | (07) 4041 0333 | admin@ledanet.com.au | yes |
| LogicWorld | (07) 3208 7877 | sales@logicworld.com.au | no |
| Mackay Internet | (07) 4957 2288 | sales@mackay.net.au | yes |
| Moranbah Net | (07) 4957 2288 | sales@moranbah.net.au | yes |
| Net-Trek Australia | (07) 5526 4655 | simon@mars.nettrek.net.au | yes |
| NetWorx Pty Ltd | (07) 4922 5566 | info@networx.com.au | yes |
| Netstream Internet | (07) 3378 7066 | sales@netstream.com.au | yes |
| North Queensland Internet Service | (07) 4723 1532 | info@nq.com.au | yes |
| OASYS Technology Pty. Ltd. | (07) 5479 2700 | voodoo@oasys.com.au | yes |
| OnTheNet | (07) 5593 3535 | info@onthenet.com.au | yes |
| Oriental Express Technology | (07) 3257 3366 | mail@oe.net.au | no |
| Overflow Internet Services | (07) 5546 3832 | bpratt@overflow.net.au | yes |
| Ozlinx Pty Ltd | 07 3340 1700 | sales@ozlinx.com.au | no |
| PowerUp Internet | (07) 3249 2600 | info@powerup.com.au | no |
| QLD NET | (07) 5539 2200 | steve@qldnet.com.au | yes |
| Quicknet | (07) 3808 1966 | helpdesk@quicknet.com.au | no |
| Retnet Internet Services | (07) 5532 3344 | sales@retnet.net.au | yes |
| Ribbon Net | (07) 3260 6875 | rnsales@ribbonet.com.au | no |
| RockNet | (07) 4922 2760 | sales@rocknet.net.au | yes |
| Satcom Internet | (07) 4121 7311 | info@satcom.net.au | yes |
| Selcon Internet Pty Ltd | (07) 4972 0177 | admin@selcon.com.au | yes |
| Squirrel | (07) 3831 3222 | webmaster@squirrel.com.au | yes |
| Starvision Access | (07) 3278 6979 | sales@sv.net.au | no |
| Sun Network Communications | (07) 3832 6366 | snc@snc.com.au | no |
| TereDonn Computer Engineering | (07) 3236 9366 | sales@tdce.com.au | yes |
| The Small Business Forum | (07) 3284 9971 | zeus@theforum.com.au | no |
| Touchbase Communications | (07) 3376 9517 | sales@touchbase.com.au | no |
| Ultronet | (07) 47241 137 | sales@ultra.net.au | yes |

local providers

| Provider | Phone (area) | e-mail | Regional dial up | Provider | Phone (area) | e-mail | Regional dial up |
|--------------------------------------|-----------------|----------------------------|------------------|---|-----------------|------------------------------|------------------|
| Unicom Internet Pty Ltd | (07) 3256 3077 | admin@netkiosk.com.au | no | of Information Technology | (03) 9650 5566 | info@ains.net.au | no |
| Universal Networks Australia Pty Ltd | (07) 3221 6922 | sales@universal.net.au | yes | Australian Internet Solutions | (03) 9654 1924 | membership@ausom.net.au | no |
| Web Express | (07) 3285 3299 | sales@webexpress.net.au | yes | AUSOM (Apple Users' Society of Melbourne) | | | no |
| WinShop Services | (07) 5532 0355 | info@winshop.com.au | yes | Benton Global Services Network | (03) 9720 5829 | Sales@celtic.bgsn.net | no |
| World Link Internet Services | (07) 5596 1166 | support@worldlink.com.au | yes | Betalink Australia | (03) 9790 1780 | jeff@betalink.net.au | no |
| Worldgroup Pty Ltd | (07) 3290 3222 | fiona@stargate.net.au | no | BlazeNet | (03) 9890 0439 | ronno@blaze.net.au | no |
| World Trade Internet | 1300 301 518 | sales@worldtrade.com.au | yes | Blue Planet NET | (03) 9842 2040 | sales@bluep.com | no |
| Xenon Internet | (07) 3888 6188 | sales@xenon.net | no | BranchNet | (03) 5450 3164 | info@branch.net.au | yes |
| Zed Net | (07) 4061 6677 | info@znet.net.au | yes | Campaspe Internet | 1300 788 182 | Info@campaspe.net.au | yes |
| South Australia | | | | | | | |
| Academy Internet | (08) 8293 8733 | steve@academy.net.au | no | Celestial Enterprises | (03) 9724 9661 | Info@voyager.celestia.com.au | no |
| Adam Internet | (08) 8231 0303 | help@adam.com.au | no | Charon Information Systems | (03) 9589 6055 | info@charon.net.au | no |
| Arachnet Pty Ltd | (08) 9249 9866 | info@arach.net.au | no | ClariNET | (03) 9421 2006 | service@clari.net.au | no |
| Arcom | (08) 8212 6900 | info@arcom.com.au | no | Comcen Pty Ltd | 1800 555 001 | sales@comcen.com.au | no |
| BOLDWeb | (08) 8410 3200 | safes@bold.net.au | no | Computers On The Run Internet | (03) 5782 0096 | ontherun@ontherun.com.au | no |
| Bridge Online Systems | 0419 862 729 | admin@lm.net.au | yes | Corporate Internet Australia | (03) 9587 1394 | admin@ciaaus.net.au | no |
| Camtech Internet | (08) 8303 3300 | isales@camtech.com.au | yes | Cosmos Internet Services | (03) 9650 4776 | info@cosmos.net.au | no |
| Chariot Internet | (08) 8272 7677 | info@chariot.net.au | yes | Country Netlink | (03) 5871 1000 | admin@cnl.com.au | yes |
| Clovelly Internet Services | (08) 8357 4000 | admin@clove.net.au | no | Crafti Internet Connexions | (03) 9876 7195 | info@crafti.com.au | no |
| Cobweb Internet Services Pty Ltd | (08) 8293 3333 | info@cobweb.net.au | no | Cybatech Computing Pty Ltd | (03) 5450 3744 | brad@cybatech.com.au | yes |
| Ctel | (08) 8364 5028 | admin@ctel.com.au | no | Cyberlink Access Systems | (03) 5332 1711 | info@cbi.com.au | yes |
| CyberCrow | (08) 8338 3668 | headcrow@cybercrow.net.au | no | Cyberspace Corporation | (03) 9887 4700 | enquiries@cyberspace.net.au | no |
| Escape.Net | (08) 8293 2526 | sales@esc.net.au | no | Cynet | (03) 9682 9300 | sales@cynet.net.au | no |
| Gateway BBS | 0417 869 693 | sysop@gwbs.net.au | no | Citywide Linkup | 03 9770 5755 | info@oz2.com | no |
| GoldNet Internet Services | (08) 9091-5593 | sales@gold.net.au | yes | DarkStar Internet | (03) 9841 5444 | info@darkstar.com.au | no |
| Hypernet SA Pty Ltd | (08) 8231 4911 | info@hyper.net.au | no | DCS Internet | (03) 5622 2980 | info@dcsi.net.au | yes |
| Internode Professional Access | (08) 8223 2999 | access@adelaidenet.on.net | no | DezzaNet Pty Ltd | (03) 9555 6740 | admin@dezzanet.net.au | no |
| InterWeb Connections | (08) 8221 5444 | tim@web.net.au | no | Diesel Internet | (03) 5831 8100 | support@diesel.net.au | yes |
| Kangaroo Island Network | (08) 8553 0274 | kim@kn.on.net | yes | Digital Dimensions | (03) 9428 9677 | admin@dd.com.au | no |
| Kern Technology Pty Ltd | (08) 8362 3784 | webmaster@kern.com.au | no | Disk O Tech | (03) 5442 8928 | maverik@diskotech.com.au | yes |
| KonectaNet Pty Ltd | (08) 8395 2400 | sales@konectanet.com.au | no | ECKnet | (03) 5799 1089 | eckhard@eck.net.au | yes |
| Lynx Internet Connections | (08) 8410 4441 | info@lynx.net.au | no | Escape Internet | (03) 9534 4440 | citizen@escapenet.com.au | no |
| maxisp | (08) 8272 8003 | gappac@maxisp.com.au | no | Export Mission Information Systems | (03) 9338 0809 | bogdan@emis.com.au | no |
| Merlin Australia | (08) 8221 5575 | admin@merlin.net.au | yes | Fatlink Australia | (03) 9775 2600 | Info@fatlink.net.au | yes |
| MicroSystems | (08) 8821 3875 | russ@kadina.mtx.net.au | yes | Golden Internet Services | (03) 9329 4785 | sales@golden.net.au | no |
| NetYP | (08) 8837 3065 | info@netyp.com.au | yes | Gravity Internet | (03) 9439 2900 | info@gravity.net.au | no |
| Newave Internet Services | (08) 8221 7033 | sales@newave.net.au | no | Great Circle Internet Services | (03) 9670 1861 | info@greatcircle.net.au | no |
| Online Internet Service | (08) 8130 9987 | johne@olis.net.au | yes | GSAT | (03) 5227 8022 | Info@gsat.edu.au | yes |
| Penola Internet Services | (03) 5583 8230 | admin@penola.mbx.net.au | yes | HardNET Cafe | (03) 9761 1378 | admin@hard.net.au | yes |
| Portal | (08) 8211 8331 | sales@portal.net.au | yes | HiTech Net | (03) 5441 3311 | support@hitech.net.au | yes |
| Professionals in Computer Knowledge | (08) 8223 7400 | support@picknowl.com.au | no | Image Networking | (03) 9606 0533 | info@image.net.au | no |
| RBE Internet Services | (08) 8862 2134 | admin@rbe.net.au | yes | InfinityOnline Pty Ltd | (03) 5176 0199 | feedback@i-o.net.au | yes |
| Rebel | (08) 8408 9600 | info@rebel.net.au | no | Insite Computer Services | (03) 9840 2318 | info@insite.com.au | no |
| Riverland Internet | (08) 8586 6425 | mpioneer@riverland.net.au | yes | Inter-Met | (03) 5422 7033 | support@intermet.net.au | yes |
| Rural Business Machines | (08) 8762 3841 | bill@rbm.com.au | yes | Internet Service Providers Pty Ltd | 1800 240 399 | info@isp.com.au | no |
| SA Schools Net | (08) 8351 8200 | webmaster@saschools.edu.au | no | Intermax | 1800 064 515 | webmaster@nex.net.au | yes |
| SAT Internet Services | (08) 8211 8500 | admin@box.net.au | no | InterDomain Pty Ltd | (03) 9686 6000 | info@interdomain.net.au | no |
| SE Net | (08) 8221 5221 | admin@se.net.au | yes | Interfusion | (03) 9592 4700 | mgilmour@interfusion.net.au | no |
| South East Online | (08) 8724 9796 | admin@seol.net.au | yes | InterNet Australis | (03) 5134 6766 | info@australis.com.au | yes |
| Tellurian Pty Ltd | (08) 8408 9600 | info@rebel.net.au | no | Internet Surf City | (03) 9587 4360 | kippy@surl.net.au | yes |
| Terra Communications (SA) Pty Ltd | (08) 8556 6941 | webmaster@terra.net.au | yes | Internet Victoria | (03) 9509 3222 | host@i.net.au | no |
| The.Net | (08) 8410 5443 | support@tne.net.au | no | Internex | (03) 5941 0000 | webmaster@nex.net.au | yes |
| TX Communications | (08) 8272 8885 | admin@txc.net.au | no | ITworks Consulting | 0418 390 350 | sales@itworks.com.au | no |
| Tasmania | | | | | | | |
| Southern Internet Services | (03) 6234 7444 | sales@southcom.com.au | no | Jaycom Internet Services | (03) 5444 1380 | info@jaycom.net.au | yes |
| Tasmania's Access Server | (03) 6234 3536 | info@tassie.net.au | yes | Jeack Internetworking | (03) 9879 5149 | admin@jeack.com.au | no |
| Vision Internet Services | (03) 6344 4432 | sales@vision.net.au | yes | Join Internet | (03) 9572 3710 | sales@join.net.au | yes |
| Victoria | | | | | | | |
| Aardvark Internet | (03) 9670 8667 | info@aardvark.apana.org.au | no | Labyrinth Connections | (03) 9642 4222 | sales@labyrinth.net.au | no |
| Access Net Australia | (03) 9686 4192 | info@access.net.au | no | Lavalink Internet Services | (03) 9416 3137 | info@lavalink.com.au | no |
| Aceplia | (03) 9723 3033 | admin@aceplia.net.au | no | Lexicon Internet Services | 1300 369 030 | info@lexicon.net | no |
| Australian Institute | (03) 9583 4454 | sales@aini.net.au | no | Look Internet Services | (03) 9576 8484 | info@lis.com.au | no |
| | | | | Mansfield Internet and Computers | (03) 5775 3066 | info@mansfield.net.au | yes |
| | | | | Mediawave Internet | 1800 644 999 | admin@mediawave.com.au | no |
| | | | | Melbourne PC User Group | (03) 9699 6222 | office@melpc.org.au | no |
| | | | | Metro Computer Services | (03) 9731 0394 | root@metros.com.au | no |
| | | | | Micronica | (03) 9699 8844 | micronica@micronica.com.au | no |

local providers

| Provider | Phone (voice) | e-mail | Regional dial up |
|-------------------------------------|------------------|------------------------------|---------------------|
| Midnight Internet | (03) 9887 4417 | support@midnightoil.com.au | no |
| Mikka International | (03) 9665 2505 | connect@mikka.net.au | no |
| MinervaNET | (03) 9431 3955 | minerva@minerva.com.au | no |
| NetConnect Communications | (03) 5332 2140 | info@netconnect.com.au | yes |
| Nemesis | (03) 9480 5873 | info@nemesis.com.au | no |
| Net2000 Pty Ltd | (03) 9793 7990 | ritchie@net2000.com.au | no |
| Netcore Pty Ltd | (03) 9725 1469 | clovis@netcore.com.au | no |
| NetExpress | (03) 5222 2809 | sales@ne.com.au | yes |
| NetGazer | (03) 5468 1010 | admin@netgazer.net.au | yes |
| Netlink Communications Services | (03) 9705 0536 | info@netlink.net.au | yes |
| Network Technology Pty Ltd | (03) 5133 0115 | sales@net-tech.com.au | yes |
| Net.Working Communities | (03) 9548 3255 | admin@networkingcom.org.au | no |
| North East Telecentre | (03) 5722 2563 | net@netc.net.au | yes |
| NovaNet | (03) 9749 8156 | sandy@novanet.net.au | no |
| now.com.au Pty Ltd | (03) 9457 2355 | sales@now.com.au | no |
| Ocean Internet | (03) 9602 5252 | admin@ocean.com.au | no |
| OnTheNet Pty Ltd | (03) 9347 2222 | info@onthe.net.au | no |
| Ozland Net | (03) 5021 2991 | webmaster@ozland.net.au | yes |
| oZramp Pty Ltd | 1300 658 759 | info@ozramp.net.au | no |
| Patash Internet Services | (03) 9894 8933 | patash@patash.com.au | no |
| Patriot Internet | (03) 5986 1530 | sales@pac.com.au | yes |
| Pipeline Internet | (03) 5224 2136 | sales@pipeline.com.au | yes |
| Planet Internet | 1800 801 507 | sales@planet.net.au | no |
| Planet Online | (03) 9302 3927 | admin@pla.net.au | no |
| Precision Technology | (03) 9887 8267 | sales@pretech.com.au | no |
| ProjectX | (03) 9682 4500 | support@projex.com.au | no |
| Q Online | (03) 5334 2885 | info@qonline.com.au | yes |
| Quail Internet Connections | (03) 9724 9788 | admin@quail.net.au | no |
| Quantum Springs Internet Services | (03) 9867 8655 | info@quantum.net.au | no |
| Rapidnet | (03) 9886 8977 | info@rapidnet.net.au | no |
| Relax Internet Enterprises | (03) 9872 6496 | sales@relax.com.au | no |
| Rod Irving Electronics | (03) 9543 2166 | rie@rie.net.au | no |
| Rons Computers | (03) 5332 3343 | sales@ronscomputers.com.au | yes |
| RUCC Pty Ltd | (03) 9682 2388 | info@rucc.net.au | no |
| S.M.E. Group Pty Ltd | (03) 9879 8400 | mjpratt@sme.com.au | no |
| Satlink Internet Services Pty Ltd | (03) 9775 2600 | info@satlink.com.au | yes |
| Schoolsnets Australia Pty Ltd | (03) 9427 9323 | info@schools.net.au | no |
| Sensation Internet Services | (03) 9388 9260 | sales@sensation.net.au | no |
| SkyNET Australia | (03) 9574 8856 | webmaster@skynet.net.au | no |
| Smart Radio Systems | (02) 6452 5555 | info@smartw.net.au | yes |
| Southern Star Communications | (03) 9740 5066 | support@ssc.net.au | no |
| Southern Internet Services | (03) 6234 7444 | sales@southcom.com.au | yes |
| Sprint Online | (03) 9427 9996 | info@sprint.com.au | no |
| Struggler's Internet Services | (03) 9754 6393 | chuck@strug.com.au | no |
| SubNet Internet Services | (03) 9682 9434 | sales@sub.net.au | no |
| Tangent Internet Services | (03) 9564 7300 | info@tangent.com.au | no |
| Tech Info Pty Ltd | (03) 9435 4669 | sales@techinfo.com.au | no |
| Techno.Access | (03) 9432 4122 | admin@techno.net.au | no |
| Teksupport Pty Ltd | (03) 9562 4577 | sales@teksupport.net.au | no |
| Twenty First (21st) Century Pty Ltd | (03) 9748 2615 | enquiries@21stcentury.com.au | no |
| ValyLink Centre 3000 | (03) 5967 2604 | admin@valylink.net.au | yes |
| Very Internet | (03) 9720 5829 | sales@very.net | no |
| VICNET | (03) 9669 9710 | vicnet@vicnet.net.au | no |
| Vicweb Pty Ltd | (03) 9889 0739 | manager@vweb.net.au | no |
| Video Data Service | (03) 9587 1394 | admin@vds.net.au | no |
| Vitel Interactive | (03) 9593 8833 | sales@vitel.com.au | no |
| Virtual Access | (03) 9848 4844 | info@virtual.net.au | yes |
| WebRider | (03) 9886 4747 | info@webrider.com.au | no |
| Website Connections | 0417 342 759 | admin@website.net.au | no |
| Websurf | (03) 9897 3711 | sales@websurf.net.au | no |
| WebTime | (03) 9429 3600 | webmaster@webtime.com.au | no |
| WestConnect | (03) 5367 7336 | connect@westconnect.com.au | yes |
| Westvic Internet | (03) 5561 7955 | info@ansonnic.com.au | yes |
| World Wire Pty Ltd | (03) 9642 2322 | sales@wire.net.au | no |

| Provider | Phone (08 unless stated) | e-mail | Regional dial up |
|--------------------------------------|-----------------------------|-----------------------------|---------------------|
| XcelNet Enterprise | (03) 9727 2210 | TopService@xcelnet.com.au | no |
| Y-Net | (03) 9762 0888 | sales@y-net.com.au | no |
| ZX Internet Australia | (03) 5976 2185 | sales@zx.net | yes |
| Western Australia | | | |
| Access Internet | (08) 9552 5543 | sales@accessin.com.au | yes |
| Ace Online Pty Ltd | (08) 9389 6166 | info@aceonline.com.au | no |
| Albany Internet Services | (08) 9842 2229 | ais@albanyis.com.au | yes |
| Altu Computer Engineering | (08) 9791 5678 | sales@altu.net.au | yes |
| Amisoft Internet | (08) 9293 3278 | sales@ami.com.au | no |
| Amitar Internet Services | (08) 9495 4905 | rick@amitar.com.au | no |
| APANA WA | 0414 945 080 | perth@apana.org.au | no |
| Arachnet | (08) 9249 3622 | info@arach.net.au | no |
| Argonaut | (08) 9310 8062 | support@argo.net.au | no |
| Astro Internet | (08) 9386 8515 | info@astro.com.au | no |
| Atlas Global Net | (08) 9237 3000 | info@agn.net.au | yes |
| Aurum Internet Services | (08) 9022 8400 | aurum@aurum.net.au | yes |
| Avon Global Communications | (08) 9574 4480 | avon@avon.net.au | yes |
| BE Net | (08) 9980 1500 | budgie@benet.net.au | yes |
| Bekkers Communications Australia | (08) 9370 5611 | jtb@bekkers.com.au | no |
| Bunbury Gateway | (08) 9791 5226 | sales@gateway.net.au | yes |
| Bunbury Internet Service | (08) 9791 4813 | sales@bis.net.au | yes |
| Bureau Services | (08) 9264 5097 | bwiren@bs.wa.gov.au | no |
| CanTech Online | (08) 9350 5430 | tony@cantech.net.au | no |
| City Net Internet Services | (08) 9356 1626 | admin@citynet.net.au | no |
| Coastlink Internet Services | (08) 9592 9185 | admin@coastlink.com.au | yes |
| Collective Internet Services | (08) 9447 0199 | info@collective.com.au | no |
| Commerce Australia | (08) 9226 0011 | sales@ca.com.au | no |
| Computers 4 U Internet | (08) 9535 9950 | c4uc4u.net.au | yes |
| Computer West Internet Services | (08) 9754 2324 | sales@compwest.com.au | yes |
| Comtech Corporation | (08) 9842 2503 | support@fullcomp.com.au | yes |
| Comswest InterNET | (08) 9380 2403 | helpdesk@comswest.net.au | no |
| Corporate Online | (08) 9430 9310 | info@copl.com.au | no |
| Crystal Internet Services | (08) 9370 1170 | guru@emerald.crystal.com.au | no |
| Design OnLine Perth Pty Ltd | 0800 683 882 | admin@pdo.net.au | no |
| Digital Media Corporation - USSR.net | 1800 054 588 | sales@ussr.net | no |
| Domain Internet Access | (08) 9443 6000 | account@dmn.com.au | no |
| EEO Pty Ltd | (08) 9306 4847 | admin@eepo.com.au | no |
| EON Technology | (08) 9201 1333 | eon@eon.net.au | no |
| Escape.net.au | (08) 9370 4501 | info@escape.net.au | no |
| Exmouth Telecentre | (08) 9949 2004 | telecentre@mwc.net.au | yes |
| Foxgold Communications | (08) 9201 0011 | info@foxgold.net.au | no |
| Generation IT | (08) 9381 7066 | sales@git.com.au | no |
| Global Internet Communications | (08) 9336 6553 | gic@gic.net.au | no |
| Global Web | (08) 9383 1800 | info@global.net.au | no |
| Goldfields Esperance Internet | (08) 9091 3185 | boss@ludin.com.au | yes |
| GoldNet | (08) 9091 5593 | sales@gold.net.au | yes |
| Highway 1 | (08) 9370 4584 | info@highway1.com.au | yes |
| ICENet | (08) 9227 1676 | www@licenet.com.au | no |
| iINet Technologies | (08) 9322 7770 | inet@iinet.net.au | yes |
| Infinite Data | (08) 9381 3003 | info@inf.net.au | no |
| Informed Technology | (08) 9380 4244 | info@it.net.au | no |
| Intelligent Internet Services | (08) 9380 4304 | ted@faroc.com.au | no |
| Interact Computers | (08) 9330 8288 | interact@ie-net.com.au | no |
| Internet Express | (08) 9322 6230 | sales@iexpress.net.au | no |
| Internet Infobahn | (08) 9226 1011 | sales@infobahn.com.au | no |
| ISTnet | (08) 9243 1404 | rhill@istnet.net.au | no |
| JRC Internet Services | (08) 9842 1822 | phil@albany.jrc.net.au | yes |
| Jazzline Internet Systems | (08) 9227 5577 | stantons@jazzline.net.au | no |
| Karratha Internet Support Services | (08) 9143 1432 | geoff@kisser.net.au | yes |
| Karriweb | (08) 9771 1522 | tgc@karriweb.com.au | yes |
| Katanning Internet Services | (08) 98214 433 | kiss@katel.net.au | yes |
| MNS Internet Services | 1300 361 399 | mns@mms.net.au | yes |
| Multiline BBS | 04-1990-1612 | gplatt@multiline.com.au | no |

local providers

| Provider | Phone (voice) | e-mail | Regional dial up | Provider | Phone (voice) | e-mail | Regional dial up |
|-------------------------------|------------------|----------------------------|---------------------|-------------------------------|------------------|------------------------|---------------------|
| Nettrek Online Services | (08) 9336 4446 | info@nettrek.com.au | no | SwiftLink Communications | (08) 9275 7000 | admin@swifflink.net.au | no |
| NetCity 33 | (08) 9250 4743 | support@ncity.net.au | no | Technical Services Management | (08) 9380 4622 | sales@tsm.com.au | no |
| NetCulture | (08) 9964 2350 | netcult@alphawest.com.au | yes | Telematrix | (08) 9228 4450 | jill@telematrix.com.au | no |
| Netlink WA Pty Ltd | (08) 9389 8477 | marketing@netlinkwa.com.au | no | TNet.Com.Au | (08) 9250 4664 | sales@tnet.com.au | no |
| NetServ Communications | (08) 9725 8552 | webmaster@netserv.net.au | yes | Total Internet Konnections | (08) 9581 8911 | accounts@tik.com.au | yes |
| Netway Technologies | (08) 9332 0111 | accounts@nw.com.au | yes | Touch88 Internet | (08) 9202 1088 | ivy@touch88.com.au | no |
| Networx | (08) 9345 3377 | online@networx.net.au | no | Treko Internet | (08) 9881 4668 | info@treko.net.au | yes |
| Omen Internet | (08) 9244 1954 | info@omen.net.au | no | Tyco Services | (08) 9479 2888 | info@tyco.com.au | no |
| Panorama | (08) 9221 0311 | support@panorama.net.au | no | UltraNet | (08) 9345 4073 | chris@ultranet.com.au | no |
| PDQ Internet Services | (08) 9259 0603 | admin@pdq.net.au | no | Up'n'Away Net Solutions | (08) 9367 9088 | info@upnaway.com | yes |
| Perth PC Users Group | (08) 9399 7264 | support@perthpcug.org.au | no | Vianet Australia | (08) 9325 6500 | info@vianet.net.au | yes |
| Pilbara Systems Internet | (08) 9140 2888 | info@norcom.net.au | yes | Virtual Services | 0413 399 4942 | admin@tempest.com.au | no |
| Q-Net Australia | (08) 9386 1178 | info@q-net.net.au | yes | WAnet | (08) 9377 7388 | sales@wanet.com.au | no |
| Reynolds Technology Pty Ltd | (08) 9474 1211 | sales@rts.com.au | no | Web Ace | (08) 9332 0011 | sales@webace.com.au | no |
| Saturn Communications | (08) 9486 1270 | info@scom.net | no | Webnet Services | (08) 9354 9555 | webnet@web.net.au | no |
| SouthWest Internet Systems | (08) 9586 1810 | sales@southwest.com.au | yes | West Coast Internet Services | (08) 9443 9088 | mudcake@wcis.net.au | no |
| space.net.au | (08) 9388 8833 | sales@space.net.au | no | Westinet Internet Services | (08) 9246 7280 | sales@westinet.net.au | yes |
| Spartan International Pty Ltd | (08) 9344 6442 | info@spartan.com.au | no | | | | |
| STAR Online Services | (08) 9355 0000 | sales@star.net.au | no | | | | |
| Starwon Enterprises Pty Ltd | (08) 9389 6767 | starwon@starwon.com.au | yes | | | | |
| Sun City Internet Services | (08) 9561 5692 | scbs@scis.net.au | no | | | | |
| Swannet Internet Services | (08) 9321 0677 | sales@swannet.com.au | no | | | | |

Information published here is provided by 'The Australian ISP List' (<http://www.cynosure.com.au/isp>) and is correct at the time of writing.
Due to lead times, corrections may not appear for one month.

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the digital lounge



How to write a net best-seller

All right, we all know that the whole idea of making money out of the Web is still a potentially touchy subject. But before you give up on cashing in on the cyber revolution, let me ask you this: have you thought of writing a book?

Now before you accuse me of going all old media on you, let me assure you that I'm not talking about a complete retreat to the bad old days of rusty typewriters and yucky carbon paper. As anyone who has actually been in a bookstore over the past five years will tell you (and some

deliver this tome every time someone unwittingly types in one of the keywords in a subject search.

Dummies for the Internet: How to Get Your Baby Online Before It Can Talk. This parent's guide for electronic child mining should give the

And don't worry if you can't write very well. Indeed, anyone who can string a few sentences together may find it hard to convince a potential end user (ie. reader) that they know what they're talking about...

of my friends have done just that) the shelves are filling up with so many publications about the Web that it's a wonder there's anybody left to actually run all those Web sites.

And don't worry if you can't write very well. Indeed, anyone who can string a few sentences together may find it hard to convince a potential end user (ie. reader) that they know what they're talking about. All you really need is a suitable title and off you go. And if you're really feeling uninspired on that front, check out some of the titles I've been working on this summer. See you at your book signing.

Y2K, I'm OK: A Manual for the Socially Unskilled and Esteem Challenged on How to Survive the Approaching Doomsday Scenario. Like most self help books, the title is actually longer than the text itself, a device that will help search engines

Teletubbies a run for their money. Or make them seem intelligent.

A Millennium Bug's Life. Get a magnifying glass and get to know your lurking software assassin before he hatches his evil eggs in your laptop. And I'm not talking about Windows 98 either.

Netscape is from Mars, Explorer is from Venus. A novel but surprisingly convincing conspiracy theory that explains how browsers are the agents of a bizarre interplanetary consortium.

The Seven Web Sites of Highly Defective People. Discover the most notorious if hitherto top secret hang outs for those who really are using the Internet to spy against their own countries.

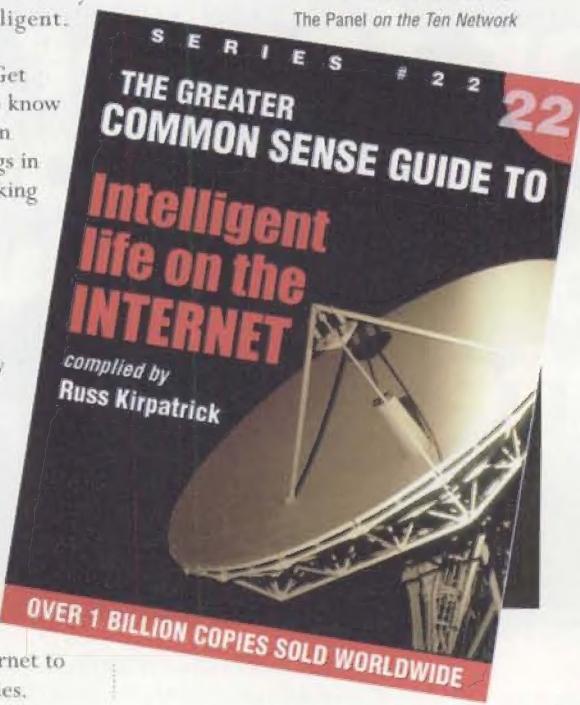
Am I Losing My Memory?

A Cache Study. A contemplation about the limits of memory from someone who can't recall the point of the exercise.

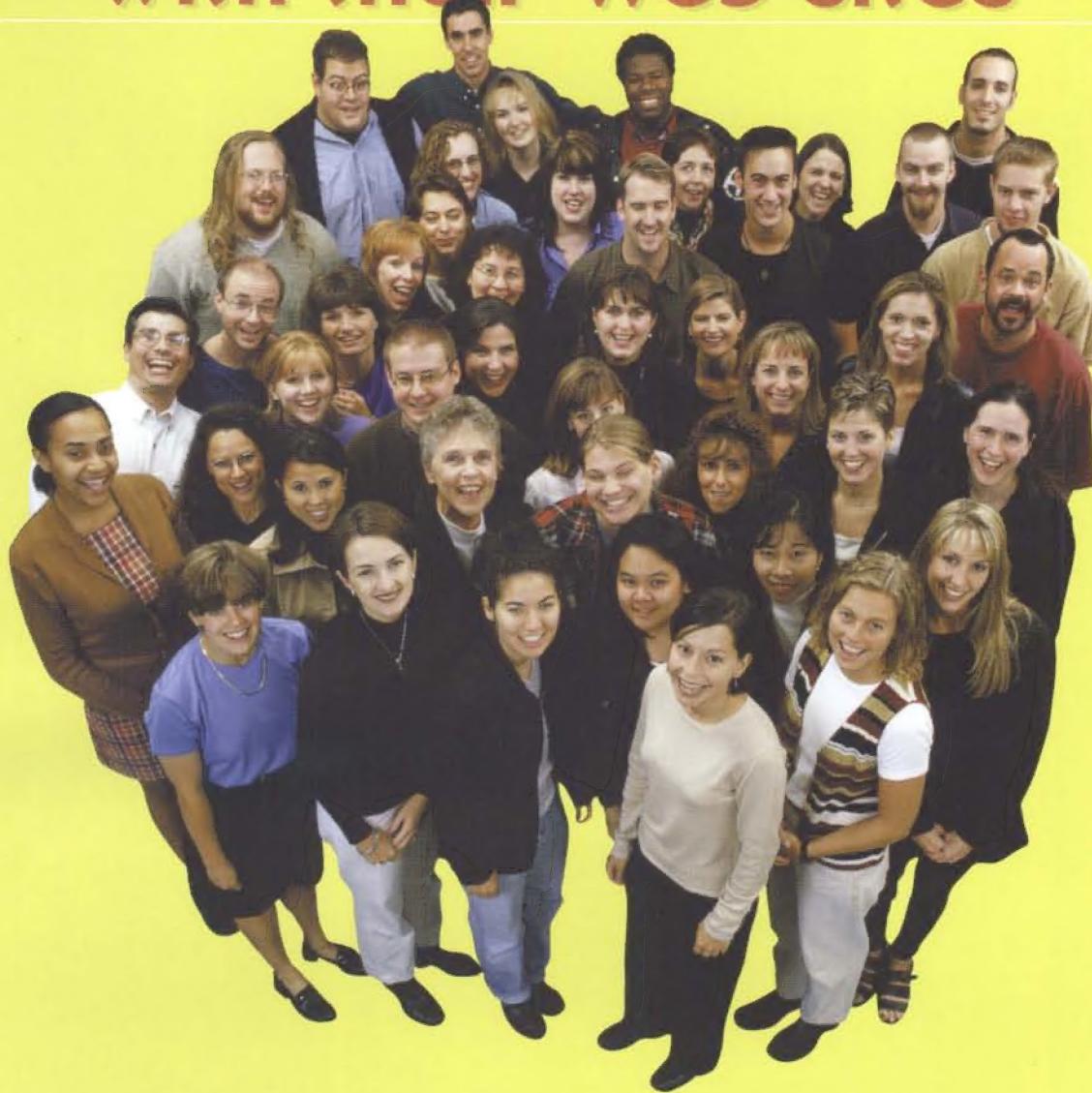
Alta Vista Baby: Hollywood Stars Tell of Their First Time Online. That's right, everybody from Arnold Schwarzenegger to, well, Arnold Schwarzenegger. By the way, if anyone knows any Hollywood stars who might want to be part of this blockbuster can you tell them to get in touch with me immediately. I'm on deadline. ♦

— Lawrie Zion

Lawrie Zion is a film reviewer for
The Panel on the Ten Network



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